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ABSTRACT

Conducted on over 3,000 fourth, fifth, and sixth grade children in six states, this study documents changes in nutrition-related knowledge and behaviors which can be related to participating in the Hulligan Stew television series. The case studies which comprise this volume function as a brief organizational analysis of the Hulligan Stew effort at six sites. The six case studies were structured to examine several components of organization within the constraints imposed by retrospective data. These components included: (1) examining the planning and training activities related to each site; (2) describing the delivery effort and activities undertaken by 4-H Extension staff, along with problems encountered; and (3) assessing all costs associated with the Hulligan Stew program. This case study analysis, while soft, can provide useful data on techniques to improve delivery, cost in relation to numbers of children reached, errors to avoid, and activities to encourage. (RC)

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TM006 028

An Evaluation of the Mulligan Stew 4-H Television Series for Extension Service, USDA

Volume III · Case Studies

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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AN EVALUATION OF THE MULLIGAN STEW
4-H TELEVISION SERIES
for
EXTENSION SERVICE, USDA

VOLUME III: CASE STUDIES

This volume was prepared for:

Extension Service, U.S. Department of Agriculture
4-H Youth Development Division

Under USDA Contract No. 12-05-300-256

by:
Abt Associates Inc.
Cambridge, Massachusetts

October 15, 1974

Abt Associates Inc. and Extension Service, USDA gratefully acknowledge the help and assistance of county, district and state extension staffs of:

Arkansas
Missouri
Oregon
Pennsylvania
Tennessee
Texas

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Preface

On December 14, 1973, Abt Associates Inc. contracted with Extension Service, USDA, to conduct an evaluation of a 4-H television series on nutrition called Mulligan Stew. This six-part series, targeted to 4th, 5th, and 6th grade children, had been shown on local television stations across the nation during the year preceding the evaluation. While some states had conducted pilot studies or mini-studies on the impact of the series, no controlled national field study had been applied. The present report describes such a study. Conducted on more than 3,000 school-aged children in six states, the study documents changes in nutrition-related knowledge and behaviors which can be related to viewing the Mulligan Stew series.

The report consists of four volumes:

Volume I, the Executive Summary, focuses on findings and recommendations. This summary is organized to give the reader a quick overview of the main findings of the study.

Volume II, Report of the Study, is a detailed elaboration of the study findings as well as a description of study design, instrumentation and procedures.

Volume III, Case Studies, is a descriptive report of visits to the six study states to elicit information on the delivery system and costs associated with the program.

Volume IV, Documentation is a reference volume containing all prior reports, submissions, computer printouts and supporting data for the study.

Many individuals contributed to this effort. At Abt Associates Inc. the contract staff included the following:

S. Shapiro, Project Director
R. L. Bale, Deputy Project Director
V. Scardino, Deputy Project Director

L. Abrams, Analyst
T. Cerva, Analyst
M. Conti, Analyst
K. Hewett, Analyst
D. Thomson, Analyst
J. Dwyer, Ph.D., Consultant
V. Horner, Ph.D., Consultant
A. Ziolkowski, Secretary

The core staff (Bale, Cerva, Scardino) have been associated with the project and have worked closely with the project director from the beginning. A team approach was maintained throughout, that is, the core staff was intimately involved in all aspects of the study. However, each of them took on specific responsibilities as well.

Dick Bale engineered the site selections and initial field visits as well as the double mailings required in the field effort. In addition, his conceptualization of the analytic approach served as the model for the specific analysis undertaken.

Vince Scardino had heavy input into the design of the instruments and was in charge of check-in, coding, and editing of the student pre- and post-test instruments.

Tom Cerva developed the prototype case study and was senior programmer for the impact evaluation. All computer runs other than the cross-tabulations were programmed and run by him.

Day Thomson, who joined the study for the case study visits, has acted as coordinator of the case studies as well as preparing statistical summary tables from the cross tabulations.

The staff with the able assistance of Ms. Ziolkowski have worked as a team in the writing and production of this final report. However some concentration of effort was planned. Thus Vince Scardino focused on the Executive Summary, Ms. Thomson's efforts were primarily addressed to the Case Study volume and T. Cerva, R. Bale, and S. Shapiro produced Volume II, Report of the Study. All products were reviewed by S. Shapiro, project director, before submission.

Evaluative research tends to be conducted by a study team; this study was no exception. What has been exceptional is the support and ongoing interest of the staff of Extension Service, USDA throughout the ten months of the study. Ms. Fleanor Wilson, project officer, and Drs. Evelyn Spindler and Claude Bennett, who worked with her as the Extension Service Committee on this project, were admirable colleagues in the effort. While Abt Associates Inc. must take final responsibility for this report, it owes much to the committee members, who functioned not only as reviewers but as contributors at critical points during the contract period.

In addition, Ms. Wilson, through her personal diplomacy, smoothed the way for us and by so doing helped to keep the study on schedule. We are grateful for the experience of working so productively with Extension Service.

Sydelle Stone Shapiro

Sydelle Stone Shapiro, Ph.D.
Project Director

October 15, 1974

INTRODUCTION

The case studies which comprise this volume function as a brief organizational analysis of the Mulligan Stew effort at six sites. The six case studies were structured to examine several components of organization within the constraints imposed by retrospective data.

These components included:

- examining the planning and training activities relative to each site
- describing the delivery effort and activities undertaken by 4-H Extension staff, along with problems encountered
- assessing all costs associated with the Mulligan Stew program: both those absorbed by Extension and those donated to Extension.

In conducting case studies of distribution techniques and associated costs, the most serious constraints are lack of consistent information and gaps in information. These are inevitable when a case study is conducted after-the-fact. For example, the sites are asked to deliver cost data on their Mulligan Stew efforts. Some of the data does not exist. Some of it must be separated out of other categories. Much of it is from memory. Since all of the data is retrospective, conclusions drawn from such data should be drawn with extreme caution.

Within these limitations, case study analysis, while soft, can provide useful data on techniques to improve delivery, cost in relation to numbers of children reached, errors to avoid, and activities to encourage.

Note: In assessing costs for Mulligan Stew in each of the six case studies, the costs at the federal level, i.e., research and development, were not factored in. The total estimated costs for Extension Service, USDA were $716,000. Since 4,000,000 4-H T.V. members were enrolled nationally for the Mulligan Stew program, the federal contribution to the per child costs equals 18¢.

ARKANSAS CASE STUDY

Abt Associates visited with Arkansas Extension Service staff on August 22 and 23. At the State level we held interviews in the Extension offices in Little Rock with Dr. C. A. Vines, the Arkansas Extension Service Director, Mr. Lloyd Westbrook, the State 4-H Leader, Mr. John Philpot, the Assistant TV Editor, Mrs. Marlene Moore of EFNEP, and Mrs. LaVerne Feaster, the State 4-H Agent who was primarily responsible for engineering the delivery of Mulligan Stew in that state. We also talked with Mrs. Jean Gipson, Home Economist for Crittenden County and Mr. Mike Flynn, 4-H Agent for Poinsett County who were responsible for programming Mulligan Stew in counties covered by the Memphis WMC-TV5 broadcast, and in which Abt Associates conducted testing.

The Delivery System

Background

Most of the state-level Extension staff knew about Mulligan Stew as early as 1972, and by October 1974 most sections of Arkansas had been covered by broadcasts. Northwest Arkansas was covered by a broadcast from Springfield, Oklahoma in September 1973; most of the rest of the state was covered from stations within Arkansas (Fort Smith, Little Rock, Shreveport, El Dorado) in January-February 1974; and the East Central and Northeast districts were covered by the Memphis broadcast in March-April 1974.* State staff had enough time to organize a delivery system designed to reach as many of the target population as possible, emphasizing the programming as an Extension/4-H effort, and yet leaving the monitoring of supplementary classroom activity and further 4-H recruitment up to the discretion of individual county staff.

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* See Tennessee case study for description of how the series was reached by Memphis stations, and how scheduling was negotiated.

Training and Distribution

On June 28-29, 1973, Mrs. Feaster attended a four-state Mulligan Stew conference in Shreveport, Louisiana. After this conference, she developed a detailed plan for reaching the target audiences in Arkansas. In July she met with the State and the six District Supervisors of Elementary Education to acquaint them with the films and materials. They reacted favorably to what they saw and assured Mrs. Feaster that they would elicit the cooperation of county superintendents and principals for programming the series through the schools. Mrs. Feaster told us how surprising it was that there was such high participation among the state's elementary schools, but this must have been at least partially due to her preliminary approach to the education bureaucracy through its topmost level of staff.

Mrs. Feaster then asked the eight district Extension agents, who operate out of the Little Rock Extension offices, to arrange meetings with county Extension agents, EFNEP and 4-H staff from the 75 counties in Arkansas, all of whom had received letters about Mulligan Stew in July. At these meetings, running from August 3 to some time in November (for the Memphis broadcast area), a "county T.V. coordinator" from each county was nominated. Since only 21 of the 75 counties in Arkansas have 4-H agents, many of these T.V. coordinators were home economists, EFNEP professionals (15 counties), agriculture agents, staff chairmen, and so on. Mrs. Feaster gave the slide-tape presentation, distributed the agents' kit, which included detailed outlines of procedures to follow, sample news releases, and suggestions for follow-up activity as well as enrollment and literature order forms for teachers to complete and give to the agent, and a summary enrollment form for the agent to send to Little Rock. She also handed out bundles of teacher-leader kits to be used to "pave the way" with school superintendents and principals and to be passed on to the EFNEP and 4-H leaders, as the T.V. coordinator deemed necessary. Except for the procedure for obtaining accurate material orders and enrollment figures (including those of the new T.V. membership who were already 4-H members),

the extent to which T.V. coordinators were responsible for carrying out Mrs. Feaster's suggestions on other aspects of the programming (the initial approach to the schools, media promotion, school follow-up activity, approaches to other groups outside of the schools) was left to the judgment of the individual agent. Although Mrs. Feaster did not establish any formal feedback mechanism to monitor the agents' activities, she feels that most were able to carry out the bulk of her suggestions.

According to her suggested procedures, then, the county coordinators took the month following the training meeting (late November-December in the Memphis broadcast area) to approach, usually in person, first the superintendents of schools and then each principal in their county, to obtain approval for students to participate. Then the T.V. coordinators visited with the teachers, and sometimes the students involved, to explain the program and materials and the procedure for enrollment, and to make the slide-tape presentation. It varied as to how many times the county extension staff found it necessary to visit the schools. In Poinsett County, Mike Flynn used one visit to explain the materials, obtain the enrollment figures (all the schools in his county participated) and literature orders, and make suggestions for supplemental activity. On the second visit, in February, he delivered the materials. Other agents gave the teachers a period in which to complete the enrollment forms (with names and addresses of the enrollees) and the teacher-leader literature order forms. They would then make a second visit to pick up these forms and suggest further activities, and a third to deliver the materials.

In any case, the literature orders were all in to Mrs. Feaster six weeks before the broadcast was supposed to start. She had initially estimated an audience of 50,000 children and ordered that many member manuals,in addition to about 8,000 teacher-leader manuals from Colson's in Chicago. When she had the final numbers, she realized that she would need double that amount and was able to put through a budget request for the additional materials. These were delivered to the state offices in Little Rock and were shipped out to the counties in approximately the correct amounts.

Some counties had to reorder, and some had materials left over, which the T.V. coordinators plan to put to use in libraries, doctors' offices, and areas which had poor T.V. reception.

In most cases the materials were delivered three or four weeks before the first broadcast, and the T.V. coordinators, sometimes alone, sometimes with help, drove to all the schools involved to drop off the required amounts of teacher and member packets and teacher and student evaluation forms designed by Mrs. Feaster. These forms, which were kept in the county agents' offices, were useful not only for obtaining impressions of the series, but for maintaining contact with the children enrolled as T.V. members for purposes of further 4-H recruitment. Mrs. Feaster had already ensured that the T.V. coordinators obtained the children's names and addresses through the make-up of the enrollment forms.

It was not considered of primary importance to approach the target population initially through 4-H staff, probably because there are relatively few staff, either professional or volunteer to handle this type of increased workload. It is felt that the present staff at the state level could handle an increased membership, however. Many 4-H volunteers attended the training meetings, picked up materials at monthly 4-H staff meetings for use in their (nutrition) project groups, or helped the T.V. coordinator with distribution of materials through the schools.

All through the process, Mrs. Feaster worked closely with Marlene Moore of EFNEP, and those 15 counties with professional level EFNEP staff used that staff as the county T.V. coordinators. Mrs. Moore believes that materials were passed to many of the 200 paraprofessionals and 1500 volunteer EFNEP workers for use in their 20,000 clients' homes, but she has no way of knowing to what degree EFNEP staff took part in the programming. She also prepared suppplementary kit of activities (skits, exhibits) that could be carried on by or for groups of EFNEP children (who are in a younger age group than the targeted population). These kits were distributed to all staff in monthly training meetings, and she believes they were widely used.

Promotion and Follow-up

Mrs. Feaster did not require the T.V. coordinators to send her any written information on reactions to the series, follow-up activities and further 4-H recruitment. Her relationship with most of the county-level staff is informal, however, and she visits county offices often enough to get a good feel for what is happening. Some agents sent her copies of letters, evaluation forms, and news articles on classroom activities. Even at the county level, the staff may not know the extent or kind of activity that was conducted in classrooms, since such activities were left up to the individual teachers, and information may not have gotten back to the schools, Mike Flynn did go back to the schools for another project, however, and happened to see some hall displays and exhibits. Ms. Gipson also reported that in one school in Crittenden county various teachers (music, science, recreation) dealt with aspects of Mulligan Stew in their classrooms.

As far as further recruitment into 4-H activities is concerned, Mrs. Feaster does not know how widely this was carried out; she does have a feeling that most county staff (certainly the 4-H agents) plan to approach the children in the fall, and that some of them may have already approached the new T.V. membership with literature on other 4-H programs. Mike Flynn was particularly zealous in his efforts to maintain contact with the 1800 children who watched the shows. He sent them all three "pen-pal" letters with nutritional information, jokes and cartoons pertaining to food, and questions on food which the children were to answer and return to him in return for a 4-4-3-2 badge. Six hundred children answered the first letter, and 250 answered all of them (the bulk of those girls). Since only 100 of the 1800 children were 4-H members, clearly Mr. Flynn has radically increased the awareness of 4-H in this county, and he plans to take advantage of it.

According to most of the staff interviewed, Mulligan Stew received more media promotion, at both the state and county levels, than other 4-H activities. Mrs. Feaster spoke about the series for half an hour in January on a commercial channel noon-time talk show. By a lucky fluke, there was a severe snowstorm going on at the time, and many, stuck inside

watching television, happened to see her. She was subsequently swamped with calls from those who wanted to know more about 4-H and Extension. She also discussed Mulligan Stew for eight minutes on an educational television station in Little Rock. The news editor in the Little Rock office sent stories on the series to 32 state and regional daily newspapers, and most of the county staff used the sample stories given them by Mrs. Feaster and wrote their own for use in county papers at least once; many had articles in the papers for all six weeks. A number of T.V. coordinators spoke about the series on radio programs for periods of one to five minutes, and in 50 of the 75 counties there was wide usage of the five sets of 10-, 30- and 60- second promotional films made up by the National Service Committee, in addition to radio spots made up by a radio editor in Little Rock.

For promotion within the school systems and 4-H clubs, the 18 slide-tape presentations ordered from N.S.C. were used widely at both the state and county levels. Further, since an article on Mulligan Stew had appeared in the Weekly Reader, a publication which many of the schools receive, the children were in many cases already aware of the series before they were approached by Extension.

Youth Involvement

Of the state population of 112,000 fourth, fifth and sixth graders, 103,000 were reached by the programming of Mulligan Stew (21,300 of these were enrolled from the area covered by the Memphis broadcast).* Of those not reached, most were students at parochial schools, which do not allow outside groups to program activities through them. In compliance with recent E.E.O. regulations, however, these schools will now include the Mulligan Stew materials in their libraries. As mentioned previously, there was no requirement from the state level to pursue this new T.V. membership with options to enroll in regular 4-H activities, but all the 4-H county agents certainly intend to follow up on this new membership. Due to the way Mrs. Feaster set up the enrollment forms, it will be easy for agents

*Of these, only 97,800 were documented in that year's 4-H statistical report. The rest were reached in the northwest district of Arkansas, where there wasn't enough time to train teachers in enrollment reporting procedures.

to document, for purposes of the state statistical report, which of those children who watched Mulligan Stew will have joined the ranks of regular 4-H clubs and project groups. Furthermore, Extension is keeping the films and, according to Mrs. Feaster, should be able to reach one and one-half times as many children next year.

Reactions

The response to the quality of the films and materials was generally enthusiastic. From the production standpoint, John Philpot said that the films successfully used every "kid grabber" known, and he could take them to any television station and not be ashamed of them. Staff felt that the films showed a high degree of professionalism and could be easily understood by the youngest children (although there was some feedback that sixth graders were bored by the series). One of the county staff interviewed felt that the shows were too obviously educational and presented too much material too sketchily. However, she also said that the way the shows presented the subject matter was far superior to the previous existing material on nutrition. A subject which is usually covered in boring, dated elementary school health textbooks. She also mentioned that she had heard from a music teacher that the songs as they were presented in the films, the records, and the song sheets weren't all the same, which made it difficult to teach the children to sing along. At any rate, the satisfaction that teachers and Extension staff felt with the series is reflected in the fact that there have been several requests to use the films in other kinds of viewing groups, and it is hoped that television stations can, from time to time, run the films as "fillers".

The series has proved invaluable as a device for increasing awareness of 4-H (although Mr. Westbrook, the State 4-H Leader, felt that the series soft-pedalled 4-H too much). 4-H in Arkansas suffers a double disadvantage -- its near-disintegration during the civil rights conflicts, and the fact that its clubs are community-, rather than school-based (although in several counties there is close cooperation with the schools). As a result of Mulligan Stew, agents now feel that they are known and can

operate future programs through the schools. Mike Flynn, for instance, plans to go through the schools to promote 4-H bicycle safety and community beautification programs proposed by his staff chairman. There has also been an increase in awareness of Extension, and many individuals have called the Extension offices in Little Rock wanting to know what other kinds of services Extension offers. Dr. Vines feels the series helped increase awareness of the range of Extension's capabilities, and that now more people will "put two and two together" and realize that Extension isn't just an agricultural agency. An interesting side-effect, pointed out by Mrs. Moore, is that EFNEP and 4-H may now coordinate more closely as a result of working together on the programming of the series.

Staff felt that because there is a lack of creative, as well as financial, resources at the state level (especially in southern states), the present system of national-level production, with states paying for use of the films, was the most appropriate. The amount of supportive work done at the federal level was greatly appreciated, especially by John Philpot, who said that the promotional material provided by the NSC was invaluable and saved him the trouble of having to produce something himself.

It is at the state level that staff have the greatest overview of the distribution process, and are therefore most aware of the possibilities that could be explored, given greater lead time, and the problems that could be avoided. Although the programming of Mulligan Stew was carried out with greater impact than was Living in the Nuclear Age, both Mrs. Feaster and Mr. Philphot noted difficulties in television scheduling: shows were often preempted for sports events (with warning everywhere but in Fort Smith), and county agents noted that this caused a drop-off in interest. This problem might be avoided by having a year's lead time to make arrangements with the television stations, and possibly by having sponsorship for the series instead of running them on public service time -- although Mr. Philpot thought that this wouldn't make any difference with sports preemptions. The county staff in the Memphis area felt that scheduling of the series at 12:30 p.m. on Saturday in the spring was inappropriate, because by that time children want to be playing outside. It

was suggested that programming in the middle of the Saturday morning cartoon block might be more advantageous, since children are riveted to the television set at that time regardless of the weather. Mrs. Feaster feels strongly that scheduling during school hours is unwise, because she feels that the children should be able to watch the shows voluntarily, and not have it forced on them as part of their school activities.

Probably many teachers and county-level staff were disgruntled at the work involved and felt it was "one more thing to do." Timing for the 4-H agents in the Memphis broadcast area was particularly bad, because organizing and judging project group contests occurs in the spring, and programming Mulligan Stew put these agents under additional pressure. On the other hand, there were those who felt that the work was "a lot of fun," and were probably compensated for the extra effort involved by the resultant ease of future access to the schools. In general, though, this feeling of pressure would be alleviated by having more advance notice.

More lead time would also enable schools to build curricula around this kind of program. Dr. Vines, who has put a great deal of thought into the matter, suggested the establishment of a national committee with representatives from the regions in home economics, 4-H and agriculture, to forecast trends in educational needs, with an eye toward special state situations. With this kind of planning, Federal USDA could produce this kind of programming to fill information needs as they arise (career development, the environment, consumer education, and drug abuse were the topical areas mentioned as important, in addition to more project group-related subject areas). Thus 4-H staff and curriculum specialists might acquire a general idea of what sequence subject areas would be covered by similar series five years into the future and would be able to develop project groups and school educational programs around them. This idea is certainly worth considering, since there was universal agreement that television programming of this nature is a most enjoyable and effective way of learning.

ESTIMATED COSTS

Since there are no formal records of the costs of delivering Mulligan Stew in Arkansas, aside from the costs of the materials, and since there was no special earmarking of Extension funds for this activity, we have had to make a number of assumptions in this cost analysis and have had to rely heavily on staff members' memory of how much time they spent and what kinds of materials were involved. The documentation of these cost estimates appear in the Appendix following the case study. We have attempted to tally costs for Mulligan Stew in Arkansas on the basis of costs per child using as our base the T.V. enrollment figure of 103,000 children.

Summary Table on Estimated Costs

	Total	Estimated Cost Per Child
Materials	14,370	14¢
Extension Labor	57,113 (includes travel)	61¢
Donated Services	41,000	44¢
Donated Goods	7,080	7¢

Total cost of delivering Mulligan Stew on a per pupil basis is estimated at $1.26.

Total cost to Extension subtracting out donated goods and services is estimated at 75¢.

Having the children pay for member manuals would bring the cost per child down by only 10¢ (Mrs. Feaster has rejected this idea, because then by right everyone should pay for all the Extension literature they can now get free of charge), and obtaining sponsorship for the television broadcasts (a serious consideration in Arkansas) would reduce it a further 7¢. However, for Extension staff to concern themselves with this kind of cost-shaving would go counter to their desire to deliver services grants to the people who need them.

APPENDIX: DOCUMENTATION OF COST ESTIMATES

Materials

Expenditures for the Mulligan Stew effort were not earmarked out of Arkansas Extension Service's annual budget. Only those costs which covered the Mulligan Stew materials, as documented below by Mrs. Feaster, were clearly budgeted.

Films (1 set, used for broadcasts from 5 stations)	$1,164
Comic books (103,000 copies)	11,043
Teachers' manuals (1500 copies)	1,600
Brochures, posters	60
Buttons, records, song sheets, certificates	503
	14,370

Extension Labor

To arrive at a breakdown of labor expenditure, for both Extension Service and educational staff, we have in some cases the memory of individual staff members to rely upon; in other cases, we have had to make assumptions based on averages.

State.

Director	3 days @ $27K	$ 300
Assoc. Director	3 days @ 20K	235
State 4-H Leader	12 days @ 20K	940
State 4-H Agent	32 days @ 16K	2,000
State Extension nutrition specialist for youth	15 days @ 12K	850
Assistant T.V. Editor	40 days @ 15K	2,415
Radio Editor	8 days @ 15K	480
News Editor	2 days @ 15K	120
Extension agents (3)	3 days ea. @ 12K	420
Secretarial	6 days @ 3.50/hour	168
		7,928

District. There are 12 agents covering the 8 districts. In teams or singly, they took about half a day to arrange the seven district training meetings (one western district was split, half of its agents going to the district meeting to the south, the other to the north), and according to Mrs. Feaster, most of these agents attended the half-day meetings.

12 district agents	1 day ea. @ $14K	$660

County. We have estimates of time spent from two of the approximately 76 counties which were covered by the broadcasts, and have had to extrapolate the average time spent to reach the rest of the viewers.

Crittenden County (reached 3500 children)		
T.V. Coordinator	16 days @ 14K	$750
Staff Chairman	2 days @ 16K	125
3 county agents	18 days @ 10K	705
		1,580 (45¢/child)

Poinsett County (reached 1800 children)		
T.V. Coordinator	25 days @ 10K	980
Staff Chairman	3 days @ 16K	190
		1,170 (64¢/child)

Rather than make assumptions about the average number of staff man-days that could have been devoted to this effort in other counties, since the number of people and schools involved and the number of visits made to schools probably varied widely, an expenditure of 45¢ per child for county-level time is closer to the norm (Mike Flynn in Poinsett County not only achieved a 100% participation rate, but spent about 7 days on follow-up activity). The 97,700 children in the other 68 counties then, would cost out to an additional $43,965 in county labor expenditure.

All Other Counties	(68 counties; 97,700 children)	43,965
	Total County Labor:	$46,715

At the state level, LaVerne Feaster and Marlene Moore drove about 1400 miles to the district training meetings, which at 12 miles to the gallon and 55¢/gallon comes out to about $60. Mike Flynn told us that he drove about 400 miles to cover 19 schools in two visits each -- this costs out to $25, which we will assume is a reasonable cost for the other 69 counties involved (they're all about the same size) bringing the total expenditure for gasoline up to $1810 (2¢ per child). There were also xeroxing, mailing and shipping costs involved, but these are impossible to estimate, and are probably negligible in comparison to other factors.

Summary of Extension Labor Costs (Includes Travel)

State	$7,928
District	660
County	46,715
Travel	1,810
	$57,113

EFNEP, 4-H. The distribution of EFNEP and 4-H volunteer leaders is by no means even across the state, and although all of the 21 4-H county agents and 15 professional level EFNEP agents were county T.V. coordinators, there is no way to determine how much effort was put into Mulligan Stew by these groups.

Donated Services

Teachers. Assuming the involvement of about 3,000 teachers, for half a day (most of them probably didn't watch all of the films, since they were not shown during classes; some carried on activities in class, and some didn't, but all would have had to take about an hour to go through the enrollment and literature order procedure), and an average annual salary of $7,000 (Arkansas school teachers are some of the lowest-paid in the country), this costs out to about $41,000, or 40¢/child.

Donated Goods

Five television stations ran the series in Arkansas. John Philpot places a production value of $200/hour on these stations, since Arkansas stations are based on the country's smallest market.

5 stations at 3 hours each:	$3,000
Memphis station @ $680/half hour	4,080 (for 21,000)
	$7,080 (7¢/child)

MISSOURI CASE STUDY

Abt Associates conducted its first case study site visit on July 25, 1974 in St. Louis, Missouri. On the state level we met with Mr. Nelson Trickey, the State 4-H T.V. Director, and on the local level we talked with Marilyn Rothbard, Director of School Services for KETC-TV, the local educational television station, Jim Bray, an Area Youth Specialist for the St. Louis area, and Mary Lou Schmitt, an Educational Assistant in nearby Jefferson County, where Abt Associates carried out the impact evaluation.

The Delivery System

Background

Mr. Trickey first heard about Mulligan Stew in 1971 during a National 4-H meeting. In January and February 1973 he personally contacted television stations whose combined broadcasting area covered the entire state, except for some small areas in the high country. He showed them one of the promotional films and received a more enthusiastic response than he had received with previous 4-H media packages. Only ten stations had broadcast T.V. Science, T.V. Action and the Photography series, but thirteen stations (one educational) agreed to broadcast Mulligan Stew in the fall of 1973.

Even though there was two years' lead time between Mr. Trickey's initial introduction to Mulligan Stew and the first telecast, which took place in October 1973, this lead time proved to be too short in some instances, as local television stations often prepare their budgets and programming two years in advance of broadcast time.

Training and Distribution

In the fall of 1972, sixty state Area Youth Specialists, representing 114 counties, attended a preliminary workshop in which Mr. Trickey demonstrated the Mulligan Stew materials and outlined a procedure for approaching the state's elementary schools. Later, Mr. Trickey conducted additional training on an area-by-area basis, as television schedules were confirmed, to clarify enrollment and delivery procedures.

Mr. Trickey enlisted the cooperation of the State Department of Education in his initial approach to the elementary schools, and in May 1973 the state's 1,132 elementary school principals received a letter from the Director of Health, Physical Education and Safety endorsing the series. This proved to be an advantage for the Area Youth Specialists, (or county-level paraprofessionals, if the area had a high population density) who visited principals in person through the summer to elicit the participation of their fourth, fifth, and sixth grade classes. These local staff demonstrated the materials, showed the promotional film, and distributed the order forms. In most cases this effort involved a great deal of time, but in the Springfield area the Specialist was able to make his presentation to and enlist the participation of 26 elementary school principals at the same time during their monthly meeting.

During the summer some of the principals sent in order figures to the Youth Area Specialist, but generally the order forms were sent to the area office in September, after the precise classroom populations had been determined. In schools where there was a teacher-coordinator who was willing to deliver materials, a single form was sent back to the area office. At other schools one order form was forwarded for each individual classroom. The local Extension staff recorded the figures for the yearly statistical report and then sent the forms to the University of Missouri's Extension Division in Columbia, which was responsible for coordinating the distribution of materials. The University staff mailed the materials either directly to the schools or local television stations or to the local Area Youth Specialists, depending on the nature of the districts. For example, in one county the agent wanted to deliver the materials personally whereas in Springfield and St. Louis the television stations assumed the responsibility for delivering the materials, since these stations had special relationships with the schools in their areas.

Mr. Trickey had ordered, as early as April, 250,000 members' manuals and 25,000 teachers' manuals. These were received by June, in plenty of time for them to be mailed directly to the schools, or to each classroom in a school, as soon as the orders were received.

This combination of having a central staff at the University receiving the orders for the materials directly from the schools, maintaining an inventory control, and overseeing the distribution, while information was distributed on a decentralized basis, at the local level, seems to have worked well in Missouri and to have reduced considerably the burden placed on local Extension staff members.

Promotion and Follow-up

Because there was no staff specifically responsible for organizing, preparing, or disseminating promotional materials, publicity efforts were minimal. On the state level, Extension staff prepared drop slides for use by the thirteen television stations. On the local level there was little media publicity. Most publicity in fact, was word-of-mouth: volunteer 4-H leaders were informed by newsletter of broadcast times and were aksed to encourage their club members to watch the series.

There was no formal mechanism at the state level for determining how teachers and children reacted to the series or what supplemental activities they may have undertaken in the classroom. In a few cases paraprofessionals asked teachers to send them evaluations of the series. But even though there probably was some classroom activity in the St. Louis and Springfield areas (the only areas where the series was shown during school hours), Mr. Trickey knows of only two instances where the children prepared some of the Mulligan Stew recipes in class.

4-H, EFNEP Involvement. Missouri's Area Youth Specialists have line responsibility for all youth work, including 4-H and EFNEP. They therefore had complete discretion as to whether or not to enlist the support of EFNEP program aides and 4-H volunteer leaders. Mr. Trickey believes that in some cases EFNEP aides used Mulligan Stew materials in their clients' homes. Further, he made sure that all 4-H volunteer leaders knew about Mulligan Stew through staff newsletters. There was no policy laid out, however, to ensure the participation of these volunteers, and feedback on such participation was informal and fairly minimal.

Youth Involvement

Of the target population of 270,000 fourth, fifth, and sixth graders, some 171,000 saw the Mulligan Stew series. In addition, it seems fairly certain that many more children both younger and older than the target population either saw or heard about the series from their siblings. Thus, Mulligan Stew reached more children, as well as gaining greater acceptance from school principals and teachers, than any previous 4-H media package.

Since there are approximately 52,000 eight-to-eighteen year olds enrolled in 4-H in Missouri, it is evident that most of those viewing Mulligan Stew were not 4-H members. It is still too early to tell if the series will have any effect on 4-H enrollment in Missouri. Moreover, no policy had been established for recruiting the new T.V. membership into the regular 4-H organization. Mr. Trickey has not heard of any such recruitment efforts, although he suspects it might have occurred in areas where 4-H memberships are particularly low. He did hear informally, however, that a few new 4-H clubs had been formed as a result of the Mulligan Stew telecasts.

Reactions

There appear to be a number of reasons for the success of the series in Missouri. Primarily, it is aimed at the right age group. The state has a health curriculum for the middle grades which is well served by such a series, and the programs were used by teachers to supplement the more traditional methods of dealing with the subjects of health and nutrition. In addition, the technical quality of the films in terms of sound, color, script, and action was rated very highly by both Mr. Trickey and Miss Rothbard. Mr. Trickey stated that he had seen programs produced by state film crews and they simply didn't measure up in sophistication and interest to Mulligan Stew.

As far as Extension is concerned, the system of centralized materials delivery and decentralized dissemination of information involved a minimum amount of pressure on local staff. The Extension staff were also

satisfied with the present arrangement of federal production, with the states subscribing to films and materials. Mr. Trickey feels that the delivery of Mulligan Stew in Missouri was extremely efficient; more so, in fact, than with previous media packages, and that the present system will suffice for the next three years for this series.

Local staff felt that the series served as an impressive introduction to many teachers who were not aware that Extension can supply teaching aids in the classroom. Mr. Trickey has received letters from Extension staff urgently requesting more materials of this type to follow up on the relationship that has now been forged between Extension and the elementary schools. Extension staff expressed interest in productions built around conservation and the environment. In addition, teachers suggested media packages on personal development, health, bicycle safety, ecology and science.

Estimated Costs

The Mulligan Stew delivery effort, paid for out of Missouri's general appropriation contingency budget, has a separate line item on the MIS, and Mr. Trickey was able to obtain for us the number of person-days (except for mailroom and secretarial labor) involved in the delivery of the series. He was also able to estimate the mileage involved. Mrs. Rothbard assigned a value to the television production time, broken down by the half hour. The analysis of donated time will undoubtedly be an underestimate, since the state Extension staff has no way of determining how much time was spent by principals and teachers in distributing the materials and organizing nutrition-related activities.

We are basing our cost-per-child on the enrollment figure of 171,000 children.

	Total	Cost per child
Materials	$28,218	17¢
Extension Labor (includes mileage)	80,650	47¢
Donated Services (KETC-TV; 50,000 children reached)	484	1¢
Donated goods (television time)	18,900	11¢

The total cost of delivering Mulligan Stew on a per pupil basis is 76¢.

The total cost to Extension, subtracting the donated goods and services is estimated at 64¢ per child.

Although Mr. Trickey had indicated that the television stations were free to sell the series to sponsors, and several stations had suggested that they could find suitable sponsors, in the end all the stations ran Mulligan Stew on Public Service Time.

Missouri Extension hopes to run the series for three more years, paying for the entire effort for Year One and Year Two. In the next three

years the cost per child may rise, since each showing will reach only the newest group of fourth graders, or about 60,000 children. It is hoped that in Year Three and Year Four the State Department of Education will be willing to support the cost of the materials.

APPENDIX: DOCUMENTATION OF COST ESTIMATES

Materials

From the minutes of a July 15, 1974 Mulligan Stew meeting, we have the following materials costs for the state of Missouri:

	Original Cost	Value of materials actually distributed
Films (6 sets)	$ 5,924	$ 5,924
Comic books (250,000)	26,023	17,800 (171,000 copies)
Teachers' manuals (25,000)	2,632	1,331 (11,600 copies)
Records (3,000)	549	549
Brochures (12,000)	524	437 (10,000 copies)
Posters (12,000)	644	617 (11,500 copies)
Promo-Film Shorts	1,360	1,360
Cost of making drop slides	200	200
	$37,656	$28,218

We will use the latter figure to represent the materials used for the population of 171,000 reached in FY 1974. Those materials that are left over will be used this year.

Extension Labor

Mr. Trickey went through the labor information reported on time and activity sheets to the Missouri Extension MIS for FY 1974, and retrieved the figure of 675 days, at the area and county level. He estimated that 325 of these days had been worked by professional-level staff, whose time is accounted at $150 a day, loaded with fringes and overhead. The other 350 days he attributed to paraprofessional labor, accounted at $50 a day (loaded). He himself put in 46 days directed toward the FY 1974 broadcasts, and is also valued at $150 a day. It should be noted that Mr. Trickey was unable to retrieve the considerable time spent by

secretarial and mailroom staff on Mulligan Stew, since these supporting staff are paid partially by Extension and partially by the University.

In summary, then,

371 professional days @ $150/day	=	$55,650
350 paraprofessional days @ $50/day	=	17,500
		$73,150

In addition to this, he estimated that he himself had driven 2,000 miles, to meetings with television representatives and to the smaller training meetings at the area level. He also estimated that local Extension staff probably drove 200 miles in each of the state's 114 counties. For a total of 228,000 miles, then, at twelve miles to the gallon and 40¢ a gallon, this costs out to about $7,500 in mileage which was charged to Mulligan Stew for this effort.

Donated Services

The KETC-TV station spent approximately 26 person days primarily in distributing the large amount of Mulligan Stew materials from the T.V. studio to the schools. We have arrived at a cost of $484 for these donated services, or about one cent per viewer (50,000 in St. Louis). The second category of donated services includes the time spent by teachers and principals distributing the Mulligan Stew materials to the classrooms and to the students and the time spent by the teachers in watching the series and supplementing the films with nutrition-related activities, which undoubtedly made the Mulligan Stew package more meaningful for the children; however, it is impossible to estimate the cash value of this time and services. Any cost analysis of Mulligan Stew must necessarily underestimate the true cost of the program and any cost information which we will be able to provide must be understood in the light of this statement.

Donated Goods

From the interviews, we identified a large number of donated goods, including radio and T.V. announcements, ad space in newspapers, and air time for broadcasting the series. Of these, we were able to estimate

only the cost of air time. Since the value of air time per half hour varies according to the size of the market area ($90/half hour for KOMA in Columbia, $150/half hour for KETC in St. Louis, and $250/half hour for WDAF in Kansas City), we will assume an average value of T.V. time of $150/half hour for the thirteen stations. Of these thirteen stations, only two broadcast the series more than once in FY 1974 -- St. Louis' educational channel broadcast the series four times a week, two separate times. The station in Kirksville broadcast Mulligan Stew once in October, and then again, eight weeks later.

St. Louis	$ 7,200
Kirksville	1,800
11 others	9,900
	$18,900

OREGON CASE STUDY

During our visit to Oregon on August 7th and 8th, Abt staff met first with several members of the Extension Service in Corvallis. These included Bill Winkenwerder, EFNEP Youth Specialist, who had taken major responsibility for the implementation of Mulligan Stew in the state, Marie Bussard, EFNEP Coordinator, Margaret Lewis, EFNEP Nutrition Specialist, Joe Myers, State 4-H Leader, and Joe Cox, Extension Director. Jim Sanners, Radio/Television Specialist with the State Board of Education, also attended one of the Corvallis meetings. In Salem the next day we met with four 4-H Youth Agents, Ed Bonham, Linda Davis, Nellie Oehler and Gray Thompson, and one 4-H EFNEP Agent, Bill Boldt. These agents represented different counties of Oregon and each county was distinctive in geography, population density and school system organization.

The Delivery System

Background

The differences between counties reflect the diversity of Oregon as a whole. Mulligan Stew, like other Extension programs, was implemented in a variety of ways that responded to these individual county needs. However, there are some general approaches that seem to have held true across the state and that set the context for the Mulligan Stew program. Most importantly, Mulligan Stew was viewed by all with whom we talked as primarily a nutrition education program which should be shared with as many teachers and students as possible throughout the state. It was neither seen nor treated as a direct link to 4-H. No attempt was made to increase 4-H enrollments through Mulligan Stew. That is, there was no 4-H - T.V. enrollment effort. This view is unique among the evaluation sites and requires some explanation.

At one time Oregon 4-H was closely allied to the schools and 4-H clubs were formed in school settings. In the late 1940s and early '50s, 4-H began to move away from the schools into home-based, volunteer-led activities. This is now the established pattern in Oregon. The 4-H

groups are primarily Project Clubs that meet monthly, formed specifically around one central interest area, such as horses or cattle.

For organizational purposes, Extension has defined a community as that area served by a single elementary school (not a school district). Extension recruits, trains and supports one adult from that area to act as Community Coordinator of 4-H activities. Ideally, this person has had a positive 4-H membership experience in the past and is able to identify and recruit community and school resources for the 4-H program. Coordinators assist in the recruitment of volunteer leaders and act as a link between local programs and county and state Extension. Oregon Extension is justifiably proud of this system, for it has been successful in both the expansion and maintenance of 4-H programs.

Given this type of organization, Extension assigns differing degrees of importance to 4-H Project Clubs and the type of short-term experience offered by Mulligan Stew. Oregon Extension has complete data on the state's 34,000 Project Club members. Another 22,000 children are involved in other types of programs, such as short-range community activities, classroom programs and special interest activities. Extension does not collect data on this group, and information dissemination is accomplished through volunteer leaders rather than being sent directly to members. According to Extension's definition, the 28,000 children represented by the same number of comic books purchased for Mulligan Stew would fall into this latter category of limited involvement.

Extension is now attempting to expand contact and activities with the schools. Mulligan Stew fits into this expansion program by providing curriculum enrichment to the schools. The Project Clubs, however, remain the most viable and productive form of 4-H activity as far as Extension is concerned, for these provide not only the skill and knowledge offered by the schools, but also provide opportunities for youth leadership and personal development and offer a sense of group identification. The maximum exposure format chosen for Mulligan Stew did not offer the opportunity for this type of Project Club, since viewing times were largely during school hours. Thus Community Coordinators were made aware of Mulligan

Stew and informal follow-up was encouraged in the clubs, but no hard enrollment program for Mulligan Stew 4-H - T.V. clubs was instituted by Extension.

Training and Distribution

While Bill Winkenwerder and other Extension staff had been introduced to Mulligan Stew as early as November, 1972, it was not until April, 1973 that the decision was made to implement the program in Oregon. The first showing was scheduled for January, 1974, providing a nine-month lead time for program preparation. This appears to be the minimal time necessary for successful implementation; Extension staff believes that more lead time would have allowed for more thorough organization and preparation. Bill Winkenwerder, who has both 4-H and EFNEP responsibilities, coordinated the program, and he and Margaret Lewis presented Mulligan Stew to members of the State Board of Education. They used the Mulligan Stew slide/tape presentation and it accomplished whatever "selling" was necessary. Portland's ETV agreed to show the complete set of films three times between January and May, 1974, with each film shown three times within each set.

It was determined that implementation would be most effective if carried out by county agents. Since there are only eight EFNEP units in Oregon covering thirty-six counties, it was apparent that EFNEP could not be responsible for contacting all schools. County Extension organization in Oregon is highly individualistic: counties with a high concentration of low-income families have designated EFNEP agents, while other counties may have one or more agency staff who share responsibilities for 4-H, EFNEP and other youth programs. However, all staff in Extension have an obligation to youth and youth leadership, and upon this basis the most appropriate county staff were selected to implement Mulligan Stew. Meetings were held with these county agents at four or five sites to orient them to Mulligan Stew through the slide/tape presentation.

Oregon Extension decided to pilot-test the series before it was aired statewide. Curry County in southwest Oregon was selected as the test site. Like many areas of Oregon, Curry County does not receive ETV

from Portland due to the mountain ranges, so individual film showings in the schools were the only possible way of implementing Mulligan Stew. During September and October of 1973, Mulligan Stew was shown in the elementary schools of Curry County, involving a tight scheduling of film shipment by riverboat from school to school. Extension staff prepared a pre-test/post-test teacher evaluation form and planned for a longer range re-testing in May of 1974. Both the pre- and post-test were administered, but shortly after the series was completed, Extension learned of the Abt evaluation contract. Given that an evaluation was going to be completed by an outside evaluator and given Extension's limited resources, the Curry County evaluation was dropped, and no analysis of the test data was conducted. Teacher evaluation comments were collected and almost without exception were highly positive. These were later used in presentations to other teacher groups as testimony to the value of the series.

Extension purchased three film sets, reserving one set for the exclusive use of ETV and placing the other two with the Division of Continuing Education in Portland which became responsible for the scheduling and distribution of the films to schools not in the Portland area and not able to receive ETV. Those involved agree that at least one more set of films would have been useful, since those at the Division of Continuing Education were in continuous use; further, many schools within the ETV receiving range which did not have the television equipment to make full use of the T.V. series could have used the films. Extension also purchased 6,000 Leader Guides and 100,000 comic books for resale to schools. Interested schools ordered these directly from the Extension office in Corvallis.

Statewide training involved two major thrusts. Bill Winkenwerder accompanied Len Tritsch, the State Board of Education Health Specialist to a series of seven workshops for public school health coordinators where Mulligan Stew was presented as a portion of the workshop content. County agents also participated in these workshops to become acquainted with the health coordinators from their area and to offer their support in introducing Mulligan Stew to the schools. While there is no clear

documentation, Extension staff believe that this approach was not as successful as they had hoped, since relatively few health coordinators assumed leadership roles later in promoting the series. However, this method did assist in gaining statewide understanding, through health coordinators, of the program.

The most critical training conducted was that of county agents in the preparation of teachers in the use of Mulligan Stew. In August and September, 1973, Bill Winkenwerder and Margaret Lewis held a series of six workshops for county agents designed to assist them in the orientation and training of teachers. A large portion of these workshops dealt with the Mulligan Stew materials, but, in addition, supplementary materials were introduced that could be used by teachers to augment and expand the learning of their students. Resource guides were prepared that suggested to teachers not only where to get additional materials, but how and when to use them within the series. An illustration of the value of this type of preparation is the program "Big Ideas", sponsored by the Dairy Council. Initially, there was a fear that Mulligan Stew could be seen as competing with "Big Ideas", a three-day workshop for teachers on food and nutrition. However, representatives of the Dairy Council attended the training workshops and introduced "Big Ideas" as additional, in-depth training for teachers, a possible next step after Mulligan Stew. Such cooperation not only eliminated potential conflict between the programs but offered tangible suggestions to teachers who wanted more resources in continuing to teach nutrition. A teacher training guide prepared by Extension was given to county agents for use in preparing teachers in their own area.

The next step was both the strongest and the weakest link in the dissemination and promotion process. The introduction of Mulligan Stew to the schools, the acceptance of it by school authorities, and the preparation of teachers in its use, depended almost entirely upon the efforts of the individual county agent. The degree of success was determined by the interrelationship of a number of factors:

- The amount of time and energy the agent was able and willing to devote to the promotion and distribution of Mulligan Stew.
- The strength of the agent's pre-existing relationships with school personnel.
- The ability of the agent to select and reach key personnel within the schools who would support superintendents, teachers, principals, health coordinators, etc.
- The physical and financial resources of the schools. Some areas of Oregon are very sparsely populated and schools are widely separated. The travel time required of most students restricts the length of the school day as well as extracurricular activities. Other schools could not afford the purchase price of teacher and student materials. (Oregon Extension did not absorb these costs.)
- The degree to which other special programs competed with Mulligan Stew.

There are certainly other factors which influenced agent success in this program, but the diversity of Oregon county situations makes it difficult to generalize. For example, in a very few instances the remarks made about Mulligan Stew on television's "60 Minutes" just before the series was to start in Oregon may have adversely affected the degree of support offered by agents and school personnel. In other cases, school budgets and plans were established before Mulligan Stew was introduced and schools resisted making changes necessary for its implementation.

For counties working under ideal conditions, Mulligan Stew was introduced briefly to the schools in the spring of 1973. In the early fall, agents conducted orientation programs using the slide/tape presentation for health coordinators, special program coordinators, nurses and/or principals. Packets were sent to principals and key school personnel. Those who had been oriented to the series returned to their schools to stimulate interest among teachers. Wherever possible county agents held teacher training sessions in the schools, using the materials prepared by Extension as well as excerpts from the films themselves.

There were, of course, problems encountered by agents in this preparation. Some of the most common:

- No appropriate central contact for the schools in a district, necessitating agent visits to each school.
- In areas designated to be served by ET, many schools did not have T.V. facilities, or did not have color T.V., or had poor reception. (In at least one county it is estimated that 80% of the students viewing the series saw it in black and white).
- Since the films were in short supply, scheduling their delivery from school to school became a major problem.

The exception to much of what has been discussed above is Portland. There is a continuing history of 4-H involvement in the Portland schools and the schools partially fund the 4-H agent. Still, initial attempts to introduce Mulligan Stew to the Portland School District through standard bureaucratic channels met with little success. Other schools in the county were approached through a method similar to the introduction-orientation-training model discussed above, and response was enthusiastic. Unfortunately, Portland schools continued to be slow to show interest, and the first series had begun on ETV before many schools decided to implement the program. When the series is instituted again in November 1974, a much greater response from Portland schools is expected.

Promotion and Follow-up

EFNEP staff worked closely with Leonard Calvert, Extension Communication Specialist, in promoting Mulligan Stew statewide. News releases were sent to state and county newspapers dealing with the series itself and with related nutrition topics. Several stories were printed in state newspapers, but Extension has not collected local articles. Other kinds of promotion must be considered on a county-to-county basis. Many schools featured "Mulligan Stew Days" and enlisted the help of cafeteria personnel as a follow-up to the series. A conference of 4-H Volunteer Leaders had a similar program. County fairs and some camps also made use of the series in exhibits and educational programs.

EFNEP nutrition aides were oriented toward Mulligan Stew and were asked to encourage their families to view and discuss the series. Extension staff also introduced the series to nutrition experts at the Governor's Council on Nutrition in November, 1973, hoping to stimulate additional statewide interest.

Youth Involvement

While Extension had hoped to reach 75% of the 4th, 5th and 6th graders in Oregon (approximately 100,000 students) this goal was not met for all the reasons discussed above. Only about 25% of this population ordered and received the comic books and this is the only standard by which Extension can measure participation. Minimally, this indicates that 25% of the target population participated, but it is generally agreed that many children saw the series in school and at home without benefit of the accompanying materials. Individual school districts purchased two complete sets of films and three separate films, indicating a continuing interest in the use of the series. Expectations are that Extension will be more expert at implementation of Mulligan Stew during the coming year and that many more schools will wish to participate in the program.

Reactions

All of the Extension staff with whom we met were very positive in assessing the value of Mulligan Stew. They believe that it begins to fill a real gap in materials and information on nutrition education for elementary schools. Once introduced to the series, most teachers are enthusiastic about its usefulness and its appeal to children. Staff also felt the series had an important secondary benefit in demonstrating services that Extension can provide and in strengthening relationships between Extension, the State Board of Education, and school administrators and teachers.

In the context of a generally positive reception, there are a few minor negative reactions to Mulligan Stew that can be noted. Teachers sometimes complained that the sound quality of the films was poor and dialogue difficult to understand. Others questioned the "mod" music and wondered if the films would quickly date themselves. As mentioned

earlier, T.V. reception in Oregon is limited and unreliable, and this also affected the overall quality of the series. In a few cases the characterization of Wilbur was resented by school personnel, but Extension does not see this reaction as significant. Extension will have more lead time this year, but the problem of additional films is yet to be solved. Finally, Extension expressed a wish that evaluation results could be published as soon as possible. They expect very positive results and would like this information as additional documentation in support of the program this year.

Estimated Costs

Extension's computerized information system was established for 1973-74 before the introduction of Mulligan Stew. Thus there was no line item against which staff charged their labor. Even at the state staff level, cost estimates beyond direct charges for films and materials would be unreliable for comparison purposes. Within the group of five county agents with whom we talked, estimates of the time they spent in Mulligan Stew related activities covered so great a range that averaging was inappropriate. On a subjective basis, all staff believed Mulligan Stew to be worth the investment of their time and labor.

The following information is taken from a report by Bill Winkenwerder:

Participants at Health Coordinator Workshops: Teachers - 112, Agents - 25

Participants at the six Mulligan Stew county agent training sessions: 43

Estimated number of teachers involved in this program during the 1973-74 school year: 2,5000

Mulligan Stew materials purchased:

By Extension:	Films - 3 sets
	Leader guides - 6,000
	Comic books - 100,000
By schools:	Films - 2 complete sets, plus 3 films
	Leader guides - 3,089*
	Comic books - 28,810*

Number of different times Mulligan Stew films were shown on ETV - 55

Number of different times Mulligan Stew films were checked out from DCE:
School districts - 105
Extension Offices - 35

Because Oregon did not participate in 4-H T.V. enrollment we have no base against which to compute per child costs. For this, as well as the reasons above, cost estimates cannot be presented for Oregon.

*resold to schools

PENNSYLVANIA CASE STUDY

On August 22 and 23, Abt Associates staff travelled to University Park and Altoona to visit Extension staff. At the state level, we spoke in a group interview with Dr. Cordell Hatch, the Radio-TV Editor, Dr. Marcia Beppler, Information Programs Specialist for 4-H Youth, and Mr. Robert Allen, Curriculum Specialist for EMEP and 4-H Youth. We also talked with Dr. Thomas King, the Associate Director of Extension, Mr. Leland Jinks, the State 4-H Leader and Mr. Kenneth Hershberger, Associate Communications Specialist, who, with Dr. Beppler, carried on the programming and delivery of Mulligan Stew in Pennsylvania in 1974. Mr. Allen accompanied us to Altoona, where we visited with Frank Simmons, Extension Nutrition Assistant, and Phillip Lobaugh, the Assistant County Agent -- these two were responsible for delivering Mulligan Stew to Blair County, where Abt Associates conducted testing.

The Delivery System

Background

At the time that Dr. Hatch and Mr. Ed Mintmier*, both of whom had had previous experience with programming ES series (TV Action, Science and Photography), decided to deliver Mulligan Stew to Pennsylvania, it was hoped that the series would be ready for airing by September 1972. Information on the series was disseminated at the county level alerting agents about the series as early as June 1971. However, it was not until November, 1972 that Dr. Hatch and Mr. Mintmier were able to approach five commercial and five educational television stations in University Park, Pittsburgh, Philadelphia, Lancaster, Scranton, Allentown, Hershey, Erie, Johnstown, and Lebanon. They distributed the printed materials for the series, and, for those stations unfamiliar with 4-H series they presented the slide-tape show which had been converted to a filmstrip. In most cases, the stations were sold on Mulligan Stew before Dr. Hatch could finish his sales pitch. They all agreed to schedule the broadcasts to start in January and February of 1973.

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*Mintmier, recently retired, was assistant state 4-H leader at the time.

Training and Distribution

A training conference was held in December 1972 in University Park for the staff (usually the male 4-H agent) from all 67 counties in Pennsylvania, since the broadcasts were to cover the state. Dr. Hatch and Mr. Mintmier ran the slide-tape and distributed and explained the materials they had developed to facilitate the delivery of the series through the state's elementary schools.

Included in these materials was a form letter for school superintendents to send to principals, encouraging their participation. The county agents were expected to contact the superintendent by telephone, if the schools were familiar with 4-H and Extension, and personally, if they were not. A second form, i.e., the school information form, required the agent to fill in the names and addresses of elementary schools in each district and the numbers of fourth, fifth and sixth grade classes and students in each school. The agent would get this information from the superintendent and would send in the bottom-line figure to the state office. The state office then would send the agent the appropriate number of packets to send to the principals, which would include a sample member's manual, informational brochure, and sufficient teacher/leader guides, group enrollment forms and form letters from the principal to the teachers announcing the broadcast times and channels. Teachers were projected to receive these packets about two weeks before the first broadcast; at that time they were to call their orders in directly to the state office, which had already stocked 100,000 members' manuals and 8,000 teacher/leader guides, and ideally their orders would be processed and delivered in one week, direct from the state offices.

Clearly, this is cutting it a bit close, especially at Christmastime. It was because there was so little lead time that Extension in University Park had made up the form letters. In this way, as much of the paperwork as possible was done in advance, and all the agent had to do was to "operationalize" the process. Furthermore, they were probably useful in that with this work done for them, school superintendents and principals were more likely to participate.

State staff handled further questions and problems in the first two weeks of December by means of teleconferences linking up nine or ten counties at a time, clearing up details of T.V. scheduling and shipment dates. After orders were filled, the county staff's involvement would cease, unless the school system was unfamiliar with Extension and 4-H, in which case the agent would have the materials sent to the County Extension office and deliver them personally to the schools.

There were some changes in the programming and delivery of Mulligan Stew in FY 1974. A different mix of television stations ran the films in 1974. Three commercial (two in Philadelphia) and one educational station dropped out, giving as a reason that they would rather wait two or three years in order to reach a completely new group of fourth, fifth and sixth graders. In FY 1974, the series was shown back-to-back with Living in a Nuclear Age. This fall there are two cable systems airing Mulligan Stew. Since the systems are new, they are eager to fill up their free channels with community-oriented material and Extension was able to have its pick of time slots.

There was no overall training session in the second round, nor were there teleconferences. There were two or three conferences at the regional (district) level, there being nine regions, but on the whole materials were sent to county staff under the assumption that they were familiar with the process. This kind of assumption can be mistaken in cases where there has been turnover in staff involved at the county level. We found that this caused problems in Blair County, where one of the agents, Phillip Lobaugh, was new to the staff and to the process for delivering Mulligan Stew. If he had not been helped out by Frank Simmon, the ENEP nutrition assistant who had been involved in the effort the year before, Mr. Lobaugh would have been at quite a loss, and this kind of confusion may have actually occurred in other counties.

In general, some corners have been cut in that most of the same stations and school systems continue to be part of the process and can now be dealt with by telephone or by mail, rather than in person. The same paper flow continues to be in operation.

Promotion and Follow-up

There was a preliminary splash of promotion in a luncheon premiere staged in Hershey in early January, 1973. This was attended by 1500 fourth, fifth and sixth graders from Hershey with their teacher, local school officials and television representatives, nutrition specialists from Penn State, and the Lieutenant Governor. Ira Klugeman and Maggie Opitce, the director and one of the Mulligan Stew kids, attended and one of the films was shown. Afterwards, the students and teachers did a mini-evaluation of what they had seen, the results of which were positive.

Most of the other newspaper, radio and T.V. spot promotion of Mulligan Stew consisted of standard material provided by the ES through the National Service Committee. This included announcements of the times and channels running the series and giving the address of the state Extension offices for individual enrollment. During the series some newspaper reporting did take place. For example articles appeared in the local newspaper on classroom activities geared around Mulligan Stew in Blair County. There may have been other school activities (and publicity), at least where there were broadcasts during school hours, but county extension staff did little either year in the way of encouraging and monitoring them, or pursuing the new 4-H T.V. membership with literature on regular 4-H clubs and project groups. Whether this is due to the lack of time and manpower or because a precedent of not following up had been set with the programming of previous Extension series is unclear. State-level Extension staff regarding the existing regular 4-H membership as high in quality, if not in quantity, and feel that it is unnecessary and inappropriate to use 4-H T.V. education as a vehicle for increasing this membership. From previous experience, county-level staff consider regular 4-H membership and 4-H T.V. membership as two separate entities, not to be amalgamated.

4-H and ENEP Involvement. There are 2,645 4-H clubs and special interest groups and 13,000 adult and teen volunteer leaders. Of the state's 108,651 projects that 4-H members are involved in, the Foods and Nutrition project group is the most popular. However, there was little

attempt to train these leaders in the delivery of Mulligan Stew materials or in carrying our supplemental activities, mainly because it was deemed more efficient to program through the schools, and also because there simply wasn't enough time.

Nor was there any systematic attempt made to involve the state's ENEP nutrition assistants and nutrition aides, at least in the 1973 round of broadcasts. This is due to the same factors as mentioned for 4-H leaders, as well as to the somewhat bilateral organizational structure at the county level. ENEP staff answer to the county home economist (or nutrition specialist) rather than the staff chairman, who was usually the one to attend the initial training conference and be involved in the teleconference; therefore the nutrition staff usually wasn't involved, although there are cases where responsibility was passed over to the nutrition specialist after the teleconference. Mr. Allen told us that this caused some resentment on the part of the ENEP staff, since they had the willingness, the manpower, and the rapport with schools* to have been of considerable help to overworked 4-H staff. Furthermore it seems unfair, at least from state ENEP staff's point of view, in that the Mulligan Stew materials, to the tune of $25,000, were paid for by ENEP funds. Again, it was a question of time and emphasis in 1973; in one month all that could be managed was to deliver the materials. This has been corrected to some degree in the FY 1974 round of broadcasts and in the gearing-up for FY 1975 by the inclusion in the county agent's packet of materials or suggestions for involving ENEP aides and assistants. The results of this new procedure are not known yet, and there is no official mechanism for checking to see that these suggestions are carried out. Nevertheless this represents a modification of procedures that should be encouraged.

Youth Involvement

Of Pennsylvania's approximately 650,000 fourth, fifth and sixth graders, 156,868 children became 4-H T.V. members in FY 1973 (91% of these were enrolled through the schools), and 48,356 in FY 1974. We believe we are safe in assuming that the latter figure does not include

*Not only do ENEP aides often conduct one-shot classes in the schools on closed circuit television, but ENEP designed and trained teachers in a nutrition curriculum in Philadelphia.

many of those who enrolled the first year, but rather represents the new fourth graders who had not been previously exposed to the series. Excepting a few areas where there was poor reception, the broadcasts have covered nearly the whole state twice, and we asked Extension staff the reason for the 65% level of non-participation. Again, it was a question of time and manpower -- agents, especially in urban areas, simply could not approach all the schools in their counties in a month, even when all their other duties were dropped, and twenty of the 67 counties did not participate at all.

There may be some cases where these children swelled the ranks of the regular 4-H membership, but there is no mechanism for documenting such recruitment.

Reactions

County staff, both in 1973 and 1974, have been placed under considerable pressure to "operationalize" the delivery of Mulligan Stew materials, even though the state-level staff produced, ready-made, as much of the necessary paperwork as possible, and even though many of the agents were relieved of the task of delivering materials to schools (except in cases where they were dealing with schools unfamiliar with 4-H). Usually the agents had to drop all their other work for Mulligan Stew, and they were often discouraged, not only by the size of the populations they had to reach (this was especially true in Philadelphia), but by some of the less-than-ideal broadcast times, such as early Saturday or Sunday morning. Other aspects of the delivery system were less than ideal: often it took more than a week to deliver the materials to the schools. In Blair County, for instance, many classrooms did not receive the members' packets until halfway through the broadcasts. Apparently problems of this kind continued to occur through the second round of broadcasts, but Dr. Beppler informs us that these timing and manpower problems are being worked out. For FY 1975, the Mulligan Stew effort was included in the May-June tasking for the first time, and hopefully county staff won't have to squeeze it in to their schedules to the detriment of their other work.

Reactions to the quality of the films and materials were very positive. The television stations have been pressing the media people

at Extension for more series of this kind, and the staff themselves, having worked with previous series, said that Mulligan Stew was far superior to anything they had seen before, and that the materials accompanying the films were useful in gaining acceptance at the television stations, with the Hershey Corporation, and in the schools. Dr. Hatch said that the series evoked surprise at one television station (KDKA in Pittsburgh) that Extension offers services not related to farming, and that in general the series opened the eyes of school officials to the range of Extension's work.

We encountered a very favorable attitude toward television programming among Extension staff, and a strong hope that there could be more series of similar quality on such topics as agriculture and an overview of 4-H*. Dr. King said that, given the access to and rapport with the school systems that has been established by the county staff on behalf of Mulligan Stew, it seems a shame not to capitalize on this situation immediately with programming of similar quality.

The state level staff were satisfied with the present arrangement of national production, with states purchasing or renting the materials. Dr. Hatch, however, pointed out that it would be less expensive for states to buy films from the Motion Picture Service in Washington, rather than from Great Plains, but that the present arrangement of buying the printed materials from the National Service Committee was the most cost-effective.

*Staff recognized the difficulty they would have selling a series on 4-H, because television stations and schools would classify such a series as purely promotional -- indeed, this attitude was encountered in the past, when Extension programmed T.V. Science I and II.

Estimated Costs

Pennsylvania is unique in our study, in that Mulligan Stew has been programmed on a continuing basis. The normal schedule that evolved after the initial wave of broadcasts in January-February 1973 involves airing the series mostly in the fall and the spring. The printed materials are ordered in bulk twice a year, hopefully well in advance of when they are needed (there is some trouble with getting budget requests put through), and there are always some on hand in the offices at University Park, in anticipation of spring and fall enrollment. We have attempted to tally costs for FY 1973 and 1974 (except for materials and some donated services) in terms of cost per child. There will be some variance in the figures for the two years since the T.V. enrollment for FY 1974 was one-third of that in FY 1973, but approximately the same effort was involved.

Summary Table on Estimated Costs

	Total	Estimated Cost Per Child (205,200 enrollees)
Materials	$29,904	14¢
Extension Labor	46,652	23¢
Donated Services	128,050	62¢
Donated Goods	45,980	22¢

Total cost of delivering Mulligan Stew on a per pupil basis is estimated at $1.21.

Total cost to Extension (subtracting out donated goods and services) is estimated at $.37.

These yearly figures come to less than one-half of one percent of Pennsylvania Extension's $10.4M yearly budget, which seems to us a minimal amount in comparison to the impact the series has had on awareness of 4-H and Extension. The staff did state that they could not have managed this effort at all without the donated goods and services, which are vital to the success of the series. They also said that they couldn't have even managed to obtain the materials and equipment, if ENEP hadn't absorbed those costs there is some concern that this source of funding may be cut back.

APPENDIX: DOCUMENTATION OF COSTS ESTIMATES

Materials

Audio-visual materials and equipment. Since the initial outlay for audio-visual materials and equipment can be said to be equally applicable to the audiences of 1973 and 1974, we will arrive at a cost-per-child for the whole period.

1 set of films	$1,164	
1 set of video cassettes (for cable systems, and for state to use for previewing purposes)	500	
Duplication of cassettes, to be held for counties to use on request	200	
1 set of quadraplex video tapes	1,150	
Duplication of above	600	
67 copies of slide-tape converted to film strip	670	
10 copies of T.V. slide spots	250	
67 copies of master tape of songs (records judged to be of inferior sound quality)	200	
Video cassette recorder	1,500	
Color monitor	500	
2 film strip projectors	350	
County graflex projectors*	500	
Total audio-visual costs	$7,584	(3.7¢ per child)

*The state purchased fifty of these at $100 each, out of ENEP funds, and Dr. Hatch assigned a 10% usage rate for Mulligan Stew, which, in fact, is less than it would have cost to rent the equipment.

Printed materials. Some of these were sent to teachers and children for the 1974 broadcasts, but were purchased in FY 1973, and some purchased in FY 1974 are still in stock. Therefore, we will simply document here the cost-per-child for the two-year period.

Members' manuals (230,000; (25,000 still in stock)	$19,550	
Teacher-leader guides (11,200; (3,000 still in stock)	870	
Brochures (17,000)	400	
Announcements (110,000)	1,500	
Total printed materials costs:	$22,320	(10.9¢ per child)

Extension Labor

Thanks to Ms. Anne Heinsohn, the Curriculum Specialist who was our initial contact in Pennsylvania, and who was enterprising enough to find out for us, by means of a questionnaire addressed to all county staff, the number of days spent on Mulligan Stew by staff category in FY 1973 and FY 1974, we have extremely complete data, which follow. The county figures include the 47 counties that participated.

	FY 73		FY 74	
STATE				
Communications Specialist	28 days @ 21,350	$2,300	35 days @ 21,540	$2,900
4-H T.V. Coordinator	35 days @ 13,500	1,800	10 days @ 10,000	390
Curriculum Specialist	11 days @ 12,600	530	10 days @ 12,600	500
Communications Specialist	90 days @ 10,000	350	120 days @ 10,000	2,060
Curriculum Specialist (EFNEP,4-H)	10 days @ 9,000	345	13 days @ 10,500	525
Secretarial	107 days	5,975	12 days	325
Mailroom	30 days	500	25 days	380
COUNTY				
Professionals	467 days @ $ 7,700	13,950	140 days @ 7,825	4,200
Nutrition Aides	120 days @ 5,200	2,420	50 days @ 5,200	1,020
Other para-professionals	22 days @ 7,300	615	10 days @ 5,200	200
Total labor		28,785		12,500
Fringes @ 13%		3,742		1,625
TOTAL LABOR		32,527 (21¢/child)		14,125 (29¢/child)

Clearly, there is a sharp drop in Extension labor in the second year, which nearly equals the drop in enrollment.

Donated Services

To arrive at a rough figure for teachers' time, we have made the following assumptions:

- one teacher to every 25 students = 8,200 teachers
- average salaries of $4.50/hour ($9.5K a year)
- half of the enrolled population saw the broadcasts on weekends or in the evening, and those 4,100 teachers put in an hour for enrollment ($18,450)
- of the other 4,100 teachers whose children saw the series during school hours, 2,050 spent an hour on enrollment and another three hours watching the series with the children ($36,900), and the other 2,050 spent two hours in addition on supplemental learning activities ($55,350).

We then arrive at a total cost in teachers' time of $110,700, or 53¢ per child.

In the case of principals, we will assume an hour of each principal's time at $7 ($15K a year), for 2,000 principals (one to every 4.5 teachers -- some schools have one each of fourth, fifth and sixth grade classes, and some have two), or $14,000 (7¢ per child). In the case of superintendents, we will operate from the figures in Blair County, where there were five school districts that participated, with a resultant enrollment of 5,400 children over the two years. Assuming an hour each at $10 an hour ($20K a year), this comes to $50, or 1¢ per child.

Donated Goods

Primary among these, of course, is the contribution of television time. Dr. Hatch values production time per half hour for both commercial and educational stations at $200. Five stations aired Mulligan Stew once in FY 1973, and five stations broadcast the series three times. In FY 1974, two stations ran the series once, and four aired Mulligan Stew three times.

FY 1973 (156,900 enrollees)		
5 stations x 6 shows x $200	$ 6,000	
5 stations x 18 shows x $200	18,000	
	$24,000	(15¢/child)

FY 1974 (48,300 enrollees)		
2 stations x 6 shows x $200	3,600	
4 stations x 18 shows x $200	14,400	
	$18,000	(37¢/child)

Furthermore, 1973 saw the luncheon premiere of Mulligan Stew in Founders auditorium in Hershey, contributed by the Hershey Corporation for one afternoon, an event which Dr. Hatch said would have cost Extension around $2,000 (1¢/child).

The only mileage costs we were able to obtain at the county level were those of the staff in Blair County -- $20 and $10 for FY 1973 and FY 1974 respectively, which, with enrollments of 3,000 and 2,500 in those two years, comes out close to half a cent per child. This is probably lower than in other states, since the system was such that agents did not have to deliver materials in person.

TENNESSEE CASE STUDY

The site visit to Tennessee took place on August 19-21. On the state level, interviews were held at the University of Tennessee Extension offices in Knoxville with Dr. Lloyd M. Downen, the Assistant Extension Service Director, Dr. George Foster, the State 4-H Club Leader, Anna Lucas, Assistant Professor of 4-H Clubs and George Mays, Associate Professor of Communications. Anna Lucas and George Mays are the two Extension staff who had overall responsibility for programming Mulligan Stew in Western Tennessee. At the District level, we met in Jackson with Estelle Vines, the Supervisor for District I, which consists of 21 counties, including Shelby County. At the county level, we talked with three Shelby County staff: James Coleman and Larry Darnell, the county 4-H agents, and Alberta Gaines, the Expanded Nutrition Program agent.

The Delivery System

Background

Although some state-level Extension staff knew about Mulligan Stew as early as 1972, Tennessee's involvement in its programming arose primarily through Arkansas Extension Service's interest in providing Northeast and East Central Arkansas audiences the opportunity to see the series. Memphis stations could not have broadcast the shows without involving Tennessee Extension people. The fact that Tennessee Extension was involved in the delivery of Mulligan Stew "secondarily", however, bears no relation to Tennessee Extension and viewer enthusiasm for the series -- clearly the response here was as warm as it was in Arkansas.

In July, 1973, George Mays, along with John Philpot from Arkansas and Tom Wilkerson from Mississippi, met with vice presidents and program directors from the three main commercial stations in Memphis -- WREC, WMC and WHBQ -- and showed them the slide tape presentation and other Mulligan Stew materials. The three Extension staff offered to obtain sponsorship for the series, fully convinced that they would have no trouble finding interested sponsors, but the T.V. station representatives were so impressed with what they saw, especially since they had had so many requests from viewers for nutritional material, that they were eager to broadcast the

films as part of their public service time. After a period of debate and negotiations, the three stations offered fairly similar broadcast schedules, and WMC-TV (an NBC affiliate) was chosen not so much because it offered the most optimal time slot (12:30 p.m., Saturday afternoon), but because of previous relations with Arkansas Extension. At around the same time, Ann Lucas and George Mays met with the State 4-H agents from Arkansas and Mississippi to discuss possible delivery systems for Mulligan Stew. Mrs. LaVerne Feaster, the State 4-H agent from Arkansas, gave Ms. Lucas the materials that she had developed from an earlier four-state meeting, a 15-page document titled 4-H TV Notes including a schedule of objectives and lines of responsibility, sample news releases, member enrollment forms, and suggestions for follow-up activity. Ms. Lucas later adopted these materials and suggestions as she saw fit to Tennessee's particular circumstances.

Training and Distribution

By the end of September, WMC had tentatively scheduled the series to be broadcast in January and February, and in October Anna Lucas and George Mays held a training meeting in Milan (a few miles north of Jackson), attended by Estelle Vines and Gene Turney (the two District I Supervisors), the two agents (male and female) from each of the 21 counties in District I, who had all heard about the series through the Jackson office, and several SPIFFY (Special Program in Food for Youth -- the youth division of ENP) program assistants. The purpose of the meeting was to lay out guidelines and offer suggestions for the delivery of the series through the District I schools. This was clearly facilitated by the fact that of the 855 4-H clubs in District I (there are 4,000 in the whole state), 830 operate in the schools, in monthly meetings held by the county 4-H agents, 4-H volunteer leaders are more project-oriented and are not considered by the school systems to have enough authority to hold these club meetings, but they may attend. In fact, it is often a teacher who fulfills the function of volunteer leader and is called a "teacher-leader," but even though a teacher-leader is involved, the 4-H agents must still hold the club meetings, with the teacher-leader in attendance.

The procedure called for the agents to approach the school principals and teachers in the fourth through sixth grades in the course of their monthly (November) round of visits to the clubs, to establish accurate participation rates (which would be relayed back to Estelle Vines and Gene Turney), and then in the course of the December round of visits to deliver the correct number of member packets (including a brochure which the Knoxville Extension had printed up) to the participating classrooms. Ms. Lucas distributed 1,000 teacher-leader packets for the agents to hand out to principals, teachers and 4-H volunteer leaders and described the use of the enrollment forms she had made up, and Mr. Mays then distributed sample news releases and radio spots. It was during this meeting that Anna Lucas managed to obtain approximate enrollment figures, and immediately thereafter she was able to send in an order to Colson's in Chicago for 67,000 member manuals and 2,100 more teacher-leader packets which turned out to be very close to the correct number, and which were to be shipped directly from Chicago to the County agents' offices.

The delivery system in Shelby County involved more planning, since a large porportion (61%) of the District I target population of fourth, fifth and sixth graders lives in Memphis, and the City of Memphis school system does not allow 4-H (or any other outside groups, for that matter) to operate out of the schools. In the third week of November (by which time the WMC broadcast had been definitely scheduled for March 9-April 20), Ms. Lucas and Mr. Mays met with Sharon Clarke, James Coleman and Larry Darnell, to discuss strategies for approaching the Memphis school system administration. In December, the agents met with the Memphis Superintendent of Schools and the Director of Elementary Education to acquaint them with the series. In January the Director of Elementary Education sent packets of materials, along with a letter from the Shelby County agents and a memo from himself to the principals of the 200 elementary schools in Memphis, asking them to participate in the programming and to let Extension in Memphis know how many manuals would be needed. Since the response over the next three weeks was minimal, the three agents personally telephoned every elementary school principal in Memphis and obtained potential enrollment figures for about half the schools.

The agents were able to start delivering the materials immediately, since a preliminary order had already been shipped from Chicago. A second shipment arrived at the end of January, and by dint of each agent taking a number of trips to 86 schools in the City, in addition to dropping materials off at the 19 county schools in the course of regular 4-H meetings, the three agents managed to get 34,500 packets of materials delivered by March 8, the day of the first broadcast.

At the same time, Alberta Gaines, the ENP nutrition agent, approached several organizations in Memphis (the Better Business Bureau, Youth Service, Red Cross Education Committee, the Nutrition Council, Girls' Clubs and St. Jude Hospital). This was the only promotional effort in District I not directed at schools; this is reasonable, because Memphis is the only place in the district where the target population cannot be reached by 4-H agents in the course of regular club meetings.

Obviously, the task of the agents in the rest of the district was easier, since they could conveniently fit promotion of the series and delivery of the materials into their regular schedule of visits in January and February, and a large proportion of the rural fourth, fifth and sixth graders are already enrolled in 4-H, or at least knew quite a bit about it (in fact, many children attend the 4-H meetings who are not officially enrolled). In January, the usual procedure involved the agents (usually as a pair) visiting for ten or fifteen minutes with the school principal who would O.K. an approach to the teachers. Then the agents would meet with the teachers and sometimes the students. During this meeting, which the principal would often attend, the 4-H agents encouraged teachers and children to watch Mulligan Stew, outlined possible classroom activities to be carried on in conjunction with the series, obtained participation figures, and often (about 80% of the time) showed the slide-tape presentation. At this time, the agents left behind teacher-leader packets, and having obtained accurate enrollment figures, called them in to Jackson. In the next round of visits in February, the county agents dropped off bundles of member packets in classrooms just before or after the club meetings. No doubt the agents may have put in time in the March and April club meetings to continue to

encourage the children to watch the program, to notify them of the unexpected pre-emption for a sports event, and to elicit reactions from the children on the series.

Promotion and Follow-Up

In addition to this direct and thoroughly efficient approach and delivery through the schools, all of the county agents promoted Mulligan Stew through the media, either using the sample news stories that George Mays had distributed at the training meeting in October, or writing their own for county newspapers before, during and after the broadcasts, often employing pictures of children doing follow-up activities taken with Knoxville-supplied Polaroid cameras. Further, all 4-H county agents have weekly five-minute radio shows, and all of those involved in the delivery of Mulligan Stew took anywhere from one to six minutes to promote the series on these programs. (This was an especially useful means of notifying viewers of any pre-emption.) It is impossible to estimate how much this kind of publicity increased awareness of the series in general, although most of the Extension staff interviewed felt that it received more media coverage than other 4-H activities. On the other hand, Shelby County staff felt that the impact of media coverage in the City of Memphis was minimal, since their radio program airs at 4:50 in the morning, and they were able to obtain very little coverage in the Press Scimitar and the Commercial Appeal, the city newspapers, although they did get a long article, with pictures, in the Millington Times.

Further augmentation of 4-H agents' efforts was carried on by the 88 SPIFFY program assistants (22 in Shelby County) who work in eight counties in District I. These women usually carrying a caseload of about 15, work individually or in groups with underprivileged younger children (first through third grade), using games, songs and action teaching to educate the children and their parents in the basics of nutrition. Depending on the county, SPIFFY staff may work in close cooperation with 4-H staff; at the very least teaching materials are exchanged, and SPIFFY children frequently end up becoming members of 4-H when they reach nine years of age. Most of the SPIFFY staff (especially

those in Shelby County) found the Mulligan Stew materials very useful in their work with not only the children, but their mothers as well. At least an additional thousand children were reached through SPIFFY.

Youth Involvement

Of the potential target population of 147,000 fourth, fifth and sixth graders in District I (90,000 in Shelby County), there was a Mulligan Stew T.V. enrollment of 65,000 (35,000 in Shelby County). Since the series was broadcast so near the end of the school year, and the bulk of 4-H enrollment occurs in the fall, it is impossible at this point to tell how many of these children will enroll in other 4-H activities. In fact, it is difficult to tell how many of these are already enrolled in 4-H since, although there were spaces on the enrollment forms for the children's names and addresses, Anna Lucas requested final numbers only, and it was up to the individual county agents whether or not they wanted to use Mulligan Stew as a means of further recruitment. It is probable that of the 30,000 children reached outside Shelby County, half of those are probably already active in 4-H, whereas in Shelby County only about 10% of the 35,000 T.V. enrollment is involved in other 4-H project work. Of the percentage of the target population that was not reached (about half), most of those were either in parochial schools (a good number in Memphis), and some were located in the three northeastern most counties in the Martin Area that could not receive either the Memphis broadcast or the E.T.V. broadcast from WLS-TV in Martin.

Reactions

Mulligan Stew met with unqualified enthusiasm from the top level of Extension Service staff on down to the children who learned from it. From the state level's point of view, the lack of emphasis placed on formal mechanisms for monitoring follow-up activity or beefing up 4-H enrollment through use of the series was justified, because Anna Lucas did not want to create more paperwork than absolutely necessary for an already beleagured staff, and because, especially in Shelby County, there are not sufficient resources to handle a greatly increased enrollment. Ms. Lucas felt that the three hours' worth of nutrition education received by

65,000 children was worth the expenditure of money and staff time, aside from the issue of what the series could do for 4-H and Extension.

There was no trouble getting the staff to take on the extra work that was involved, and there was little difficulty encountered in selling the package to principals and teachers. If there were any negative feelings at all, they arose from 4-H staff and teachers not having enough lead time to work the films' content into regular 4-H nutrition project work or classroom health units (although there are cases where Mulligan Stew happened to fit into scheduled class work, notably in the fifth grade in Henry County). Extension staff, school teachers and principals, and the television staff generally felt that Mulligan Stew, both the films and the materials,presented nutrition more vividly and instructively than any previous nutrition material ("if that doesn't teach nutrition, then we might as well give up teaching it.") There are instances where the materials spread both downwards (to the first grade) and upwards, as far as twelfth grade.

All Extension staff interviewed observed that there was an increased awareness of 4-H and of Extension as a result of the programs; there have been cases where people who saw the films called up county extension offices and asked what other kinds of programs 4-H offers. This is especially important in the City of Memphis, where agents now feel they have their "foot in the door" in the city's schools, whose administration had not previously had any dealings with 4-H. The people we talked to are all hopeful about the possibility of presenting, through similar films, the whole gamut of subject areas around which 4-H presently organizes project groups -- personal development, soil conservation, the environment, electricity, automobile safety, career development, family living, and agriculture (oriented toward the urban youth population). Two staff members hoped that something might be produced that would have more interest for boys, who might tend to think that nutrition is woman's work, and two others hoped that programs might be developed to increase urban youth's awareness of the possibilities of 4-H.

The distribution process was accomplished smoothly and Dr. Dowen

and Dr. Foster had high praises for Ms. Lucas' efficiency. Ms. Lucas herself complimented the county agents on their level of organization, but then, the circumstances were such that there really was relatively little work involved for agents in proportion to the impact of the series and the increased awareness of 4-H. The Shelby County agents were under pressure, psychologically and physically, to deliver the series in Memphis, but this was somewhat relieved (as it was everywhere) by the re-scheduling of the films in March and April. On the one hand, agents had a longer lead time to do effective media promotion and on the other hand, there was very little duplication of effort. The only general criticisms were of conditions which couldn't be helped -- the pre-emption of one of the shows, which agents and teachers felt may have caused a drop-off in the children's interest, although the educational channel in Memphis re-ran the shows on Tuesday evening at 6:30, and the scheduling of the series so near the end of the school year, which made it difficult for teachers to carry out, or for 4-H agents to monitor any follow-up activity in class. Furthermore, it was felt that the end of the year is poor timing just because so much else is going on, and it's difficult for anything to capture the children's interest for six weeks.

Extension staff felt that the support work done at the national level was extremely useful, and Anna Lucas was particularly grateful to Larry Krug of the National Service Committee for being on hand continually to help her out with shipment sizes and dates. Most of the staff felt that production and funding at the national level is the most effective alternative, since programs produced at that level would be more sophisticated and have a wider application than state-produced films. It was pointed out that southern states have greater need and fewer resources to reach their highly rural populations through this form of education than other states. On the other hand, one person felt that if films were produced on the state level, and possibly subscribed to by neighboring states, they would have a stronger local appeal and result in an increased awareness of 4-H as a community-based function.

ESTIMATED COSTS

Since there is no formal record of the costs of delivering Mulligan Stew in Tennessee, aside from the costs of the materials, and since there was no special earmarking of Extension funds for this activity, we have had to make a number of assumptions in this cost analysis and have had to rely heavily on staff members' memory of how much time they spent, and what kind of materials were involved. The documentation of these costs appear in the appendix following the case study. We have attempted to tally costs for Mulligan Stew in Tennessee on the basis of cost per child using as our base the T.V. enrollment figure of 65,000 children.

Summary Table on Estimated Costs

	Total	Estimated Cost Per Child
Materials	$ 9,110	14¢
Extension Labor	13,170 (includes travel)	20¢
Donated Services	14,800	23¢
Donated Goods	7,680	11¢

Total cost of delivering Mulligan Stew on a per pupil basis is estimated at 67¢.

Total cost to Extension subtracting out donated goods and services is estimated at 34¢.

Although the films and videotapes can be used again and again to reach other areas of Tennessee, very nearly the same costs would be incurred each time in terms of staff time and donated goods. It has been suggested that the children subscribe by paying for the comic books, which would reduce the cost per child by about 10¢, but the state-level staff felt that this kind of education loses its appeal if the people it's meant to benefit have to pay anything at all for it. It has also been considered that the television time should be sponsored which would reduce the cost and this may indeed occur the next time the series is programmed, but more to insure against unexpected pre-emptions than to

save costs. Extension's attitude about the costs incurred in distributing this kind of education is that it's part of the services they offer, and therefore not subject to profit-and-loss scrutiny.

APPENDIX: DOCUMENTATION OF COST ESTIMATES

Materials

Below are Anna Lucas' figures on the expenditures on M.S. materials:

Films	$1150	(one set for Martin area)
Books	6700	(67,000)
Teacher packets	310	(3,100)
Buttons, etc.	550	
Brochures (one poster)	200	
Printing	200	(ES in Knoxville printed up their own brochure for the member packets)
	$9100	

Extension Labor

In addition to the assumptions made about the amount of time spent, we have had to make assumptions, in some cases, about yearly salaries, since many Extension staff are paid by both the state and the county and do not know their annual income; other staff members simply did not care to volunteer information on their salaries, so we made assumptions based on their level of years of experience and position.

Staff		Total amount	How spent
State			
Staff	(2 days @ $20K)	$ 160	all administration
Staff	(2 days @ $25K)	196	
Staff	(15 days @ $12K)	675	training/administration/distribution
Staff	(18 days @ $18K)	1224	publicity/training/T.V. arrangements
clerical	(12 days @ $3.50/hr.)	320	administration
District			
Supervisor	(4 days @ $12K)	180	administration/training/general servicing
Supervisor	(2 days @ $13K)	100	training/general servicing
County (Shelby)*			
3 agents	(17 days each @ $9K)	1734	distribution/training/publicity
ENP	(20 days @ $11K)	830	distribution/publicity
County (Henry)*			
2 agents	(16 days each @ $9K)	1088	T.V. contacts/distribution/publicity
County (other)*			
30 agents	(5 days @ $10,125)	5850	distribution/training/publicity
SPIFFY			
88 program assistants	(1 hour each @ $3.50/hr.)	300	follow-up

Clearly, there are several grey areas in this analysis of labor. Shelby county agents had a great deal more work to do than other county agents, as did Mary Kate Ridgeway from Henry County, who was responsible for having the films obtained for the Martin area, and made the arrangements with WLST-TV in Martin to broadcast the series three times a week, during school hours. We therefore assumed much less time for the county agents in the rest of the district, assuming an average of 24 club visits per month for each pair of agents (an hour extra work per club, over a period of three months, plus a day for training in Milan, and a day's work on publicity.)

An estimate of an hour for each SPIFFY program assistant on Mulligan Stew may be extravagant, but Estelle Vines is sure that all of these people did something with the series; 4-H volunteer leaders, especially in the nutrition project group probably did work with Mulligan Stew as well, but there was no feedback on that.

Donated Services

Teachers

3,000	(1 hour each @ $4/hr.)	$12,000	follow-up

Principals

800	(½ hour each @ $7/hr.)	2,800	
		$27,457	(Rounding to $27,500)

An hour each for teachers may be extravagant; however, it is certain that teachers in the Martin area may have put in as much as three hours, since the series was broadcast during the week.

Donated Goods

The value of commercial (WMC specifically) television time is $680/half hour. Should the resulting $4,080 for the three hours be split up among the three states? The worth of educational television time is not documented in the manual that Mr. Mays referred to, but if it were calculated at $150/half hour, the Martin area television time (broadcast three times a week, over three separate channels) would be $2,700, and

the time for the educational channel in Memphis would be $900. There is no documentation on the value of 84 minutes of radio time, and 525 written column inches and 850 picture and caption inches in Tennessee newspapers. The only other obtainable costs were for Ms. Lucas and George Mays' travel ($200 trips to Memphis and Milan); however at least 50 people attended that conference in Milan, all driving, I suppose, and being reimbursed for gasoline. Larry Darnell and Alberta Gaines computed the total mileage for driving around Memphis to be about $50, and there was about a $50 postage cost (spent by the Director of Elementary Education for the initial approach to 200 schools, and by ES in mailing an announcement of the pre-emption to 86 schools).

Television	$4080	(WMC)
	3600	(E.T.V. in both Memphis and Martin)
Travel	200	(Anna and George)
	220	(30 cars, ave. 100 miles each, 15 miles to the gallon, 55¢/gallon)
Postage	50	
	$8150	

TEXAS CASE STUDY

On September 19 and 20, Abt Associates staff traveled to College Station, Dallas and Fort Worth to visit with Extension Staff. At the state level we spoke with Dr. Donald Stormer, State 4-H and Youth Leader, Mr. George McArthur, T.V. coordinator and 4-H and Youth Specialist, Ms. Meatra Harrison, 4-H and Youth Specialist, Ms. Sally Springer, Project Leader and Ms. Mina Valdez, ENP-Youth. Both Ms. Springer and Ms. Valdez are Foods and Nutrition Specialists.

At the district level we visited with Ms. Tom Joyce Cunningham, District 4 Extension Agent (Home Economics) and Mr. Dan James, Area 4-H and Youth Specialist.

At the county level we spoke with Ms. Cheryl Harrison, Tarrant County Extension Agent (Fort Worth) and Ms. Renee Saunders, Johnson County Extension Agent.

The Delivery System

Background

Texas is the largest state in the Union. Its vast size is reflected in an Extension professional staff that numbers close to 1100, an Extension payroll that recently went as high as 2300 and an annual budget of $23M. While Extensions in all the states visited have some tendency toward decentralization, it is the norm in Texas.

Decentralization is institutionalized by county contributions to the budget which go directly to the county Extension office. They account for almost 1/3 of the annual budget. This permits for strong county Extensions and does not build in a need to account to the state office.

Although the State Extension staff has some supervisory control over county staff, they serve more in a service capacity, making information and materials available to county staff. They can suggest programs but cannot force them on the districts or counties.

In Texas the presence of 13 district offices reinforces the tendency towards decentralization. Because the state varies so drastically in climate and topography, districts have unique needs which they respond to by developing individualized programs and special interests.

Most counties have several county agents. (There are 750 county agents in Texas). Because the county office has several professional staff there is less need to combine programs in the person of one staff member. While it is true that wearing several hats may be difficult, being responsible for only one program tends to focus the agent's efforts on strengthening that program without considering its priority in the program mix of Extension. It is in the context of these unique conditions that the T.V. coordinator implemented the delivery system described below.

Training and Distribution

Media Placement.

There are 20 T.V. broadcast areas in Texas. This compares with 1-3 in most other states. The procedure used by George McArthur, state T.V. coordinator, was to contact the agent in the county where the T.V. station was located to enquire as to his/her interest in pursuing the broadcasting of the program. If the county agent was interested he/she was to contact the district agent to explore the district's interest. Mr. McArthur offered to provide support either with materials or by going with the agent to the station; the agent decided how much assistance was needed from the state. The responsibility for station contact was therefore totally decentralized; it was kept with the people who would carry the program in the county. These contacts were made after the State Extension ordered the films in June, 1973. Broadcasting in Texas did not take place before late winter of 1973; most of the first set of broadcasts took place in January/February of 1974. (There were some exceptions to this: e.g., Beaumont used the films the year before in a pilot test of the series; the county agent in Amarillo ordered the films independently of the rest of the state, and the Dallas schools ordered the films and used them on closed circuit T.V.)

Training Conferences

While the county agent was responsible for media placement, the State office took on responsibility for the presentation and training conferences held on Mulligan Stew for Extension staff. These sessions were conducted in 12 of the 13 districts.

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Example of Training Materials for Texas

SUGGESTED STEPS IN
PROMOTING AND ORGANIZING FOR
4-H "MULLIGAN STEW" SERIES
THROUGH A SCHOOL SYSTEM

ACTION	TO OR FROM WHOM	WHEN
1. Make an initial contact to inform school administration about the series.	Superintendent (Health Coordinator and Director of Food Services are good contacts to include.)	2 to 6 months prior to telecast
2. On approval of superintendent, notify and contact principals of schools that could be involved.	Principals	7 weeks prior to broadcast or sooner.
3. Inform teachers about series and explore a way to secure leaders, either teachers or parents. Distribute posters and/or promotional brochures and enrollment forms.	Teachers	6 weeks prior to broadcast or sooner.
4. Provide training for teachers and/or leaders. Distribute teacher/ leader guides.	Teachers and/or leaders	5 to 6 weeks prior to broadcast.

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NOTE: Steps 3 and 4 may sometimes be combined.

ACTION	TO OR FROM WHOM	WHEN
5. Secure completed enrollments.	Teachers	4 weeks prior to broadcast or sooner.
6. Distribute member guides prepackaged for rooms according to completed enrollments.	Principals, teachers, or central school distribution center.	1 to 3 weeks prior to broadcast.
7. Make periodic checks regarding participation and response.	Teachers, leaders, cafeteria directors, principals, health curriculum directors.	During broadcast period.
8. Keep teachers and/or leaders informed of any schedule changes. (Every effort is made to avoid changes but occasionally they happen.)	Teachers and leaders	Prior to an affected broadcast.
9. Supply participation certificates to leaders desiring same. Provide on request.	Teachers and leaders	1 to 2 weeks prior to conclusion of broadcast.
10. Evaluation - complete type and to degree desired	Teachers, leaders, members	On conclusion of broadcast and related activities.

Prepared by 4-H and Youth Specialist
Texas A&M University
Texas Agricultural Extension Service
September 11, 1973

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Although the series had been assigned to 4-H, Mr. McArthur, the 4-H T.V. coordinator, worked very closely from the beginning with food and nutrition specialists from the Home Economics section of Extension. Because the subject matter of Mulligan Stew is nutrition, he involved four food and nutrition specialists. A team approach was employed, with 4-H handling the organizational components and the food and nutrition specialists handling the subject matter and content areas.

The training sessions in each of the districts followed the same format. At each district at least one person from each county came for training. The District Agent and area 4-H and Youth Specialist frequently participated. Training was conducted by a member of the State 4-H staff and by a State Food and Nutrition specialist.

The 4-H staff member, Mr. McArthur, described the overall organization of the effort. At each session the slide-tape presentation was used and one of the six shows was also shown. Agents received a training packet which contained

Order forms for Materials

Enrollment Forms

Posters/Brochures/Teachers Guide/Member's Manual as developed by ES-USDA

Answer Sheet to Guidebook Questions

Form Letters, Announcements

Two Evaluation Forms

A State-Designed Certificate of Participation

Guidelines for Implementing the Series

Suggestions for Promoting Series

The last item had five different listings varying according to target audience. These suggestions had been carefully developed; one of them is included as an example of the kind of planning which went into the training meetings.

The Food and Nutrition specialist presented the member guide (comic book) to the agents, pointing out the subject matter areas emphasized and suggesting other activities that could be explored. She also explained the pre-post evaluation forms which Extension wanted to use to study changes in food habits that could be observed after the series was aired.

The training conferences were conducted in one day for about six hours. Following these, agents returned to their county and, if they decided to work with it, decided how the Mulligan Stew program would be conducted in their county. Although viewing times tended to be outside of school hours, teacher-volunteers worked with their classes.

County Training and Distribution. The following is a segment of a report from Renee C. Sanders, Johnson County Extension Agent. It is an example of the efforts devoted to the Mulligan Stew program by an interested county agent. It is instructive to compare this report to the "Suggested Steps for Promoting ... Mulligan Stew ..." prepared by the state. Clearly the suggestions were followed.

"This agent received Mulligan Stew T.V. Series training in October and was placed in charge of the program for Johnson County.

During the month of November, the ACEA phoned nine county school superintendents and principals in order to set up meetings for the explanation of Mulligan Stew. The ACEA met with 19 county school officials during six meetings and explained the Mulligan Stew T.V. Series. All 19 school officials gave permission for the Mulligan Stew T.V Series to be implemented in their school systems.

In November and December, the ACEA trained 38 4th and 5th grade teachers in seven meetings concerning the Mulligan Stew program. The teachers learned how to use the member and leader guides as well as posters and other visual aids. In December, the ACEA delivered the Mulligan Stew educational material to 33 4th and 5th grade teachers.

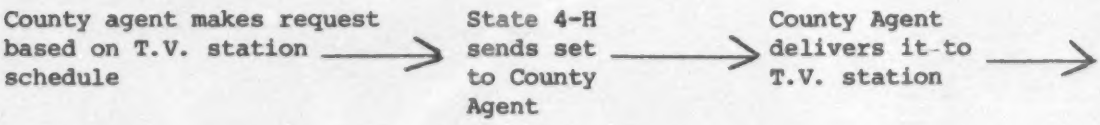
Publicity included two circular letters sent to 38 4th and 5th grade teachers in December and February explaining details of the T.V. series. Two other circular letters were sent in April to 9 school officials and 38 teachers revealing the results of the Mulligan Stew T.V. Series in Johnson County. The ACEA wrote two news articles which were printed in five county papers concerning the Mulligan Stew T.V. Series.

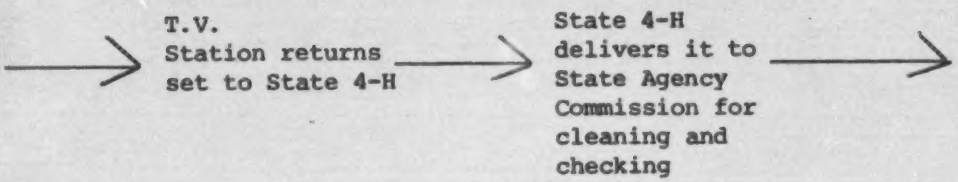
Two Jr. Leaders assisted in a telephone survey in Alvarado on February 9, 1974 during the last program of Mulligan Stew. The ACEA sent two evaluation forms to 38 teachers in order to calculate the results. 28 teachers returned the two evaluation forms.

In April, the ACEA and apprentice agent completed 1138 Mulligan Stew T.V. Series participation certificates. These were mailed to the 38 teachers for distribution among their students."

Distribution Procedures. The State Extension Service at Texas A&M was responsible for distribution of all materials and films for Mulligan Stew. All orders from county and districts went directly to George McArthur in the state office and were processed there.

Films were stocked in the state 4-H office. 4-H had purchased four sets of films, one of which was reserved for preview purposes. Preview prints went out to stations on request. Only one film was sent to a station. Broadcast prints were treated differently: they were allowed out only for the actual broadcasts, and the entire set was sent at one time. Most of the time, three sets were sufficient to service the stations without overlap. The procedure can be described by a flow model as follows:


County agent makes request based on T.V. station schedule
State 4-H sends set to County Agent
County Agent delivers it to T.V. station



Materials, such as publications, were ordered along with films at the end of the fiscal year (June 1973). These were ordered by George McArthur. His estimates for each item came very close to the actual numbers used. Materials were stocked at the Agriculture Distribution Center. Via the district office, agents were instructed to estimate their needs and order accordingly. Once the agent placed an order he/she was expected to live within this quantity. The agent was encouraged to be realistic, to "determine what you can reasonably utilize."

The agent then had to live within these limits unless he got a definite O.K. on more materials from the 4-H office.

McArthur's initial order of Member's Manuals (comic book) was 150,000. As he said, this was just enough to "fill up the pipe line and take care of 117,000 kids."

Promotion and Follow-Up

The focus of effort at the state level was on distribution and training. The nature of media placement and the size of Texas made statewide promotion impractical, and none was done. Any promotion reported was at the county level, but even at the county level there was little or no publicity or promotion. There was no effort to involve the outside community in this effort beyond the T.V. stations and the schools.

George McArthur distributed a newsletter for the agents giving them constant updates on the progress of Mulligan Stew programming in Texas. The 4-H office also prepared a trailer slide which was used at the end of each of the films. It read "Prepared by Texas Agricultural Extension Service." After a T.V. station completed the series, the 4-H

Extension office sent a letter of recognition to the FCC citing the station for its public service contribution.

4-H and ENP Involvement. Within Extension one might have expected that the Mulligan Stew series would be promoted by ENP. Since the series deals with nutrition, is aimed at children, and is sensitive to the needs of urban children,it is a particularly good vehicle for the Extension message. Unfortunately,the opportunity for this 4-H - ENP interface was not realized.

The reason for this points up an organizational characteristic which weakens the potential effects of any program. One of the measures of success of any program is the number of children who sign up for it. If ENP children were to watch the Mulligan Stew series as part of their nutrition training, they would have had to sign up as 4-H - T.V. members. Since you cannot double count for the same activity, ENP would have lost out in terms of accountability. Thus th ere was no motivation to push the series, and there was little coordination between Mulligan Stew and ENP staff.

ENP agents were told to let the kids know about the series and that comic books were available, but there was no training of the volunteer leaders and no follow-up or evaluation. In fact, it is unknown whether any ENP children watched the program. One can assume that some did, but it is likely that they did this as part of a school rather than a club activity.

Follow-Up in Greg County. Only one county.in Texas reported any follow-up activity for Mulligan Stew. Linda Marley, County Extension Agent, went to the schools to distribute the 4-H Bulletin. She attempted to organize some 4-H project clubs but was not successful. She felt that the main reason for this was the timing -- she had gone to the schools toward the end of the school year. She will make another attempt to organize the clubs in October/November, which is traditionally the best time to organize clubs within the schools.

Youth Involvement

Of Texas' approximately 687,000 fourth, fifth, and sixth grades, 117,000 children have become 4-H-T.V. members through Mulligan Stew. This accounts for approximately one-half the 4-H membership in Texas.

Eleven T.V. broadcast areas have aired the series. Of these, ten of the eleven stations have been commercial stations broadcasting as part of their Public Service T.V. time. One of the stations' broadcast area crossed state lines and included parts of Oklahoma. Another, the Dallas T.V. station, covers five states through its cable facilities.

Reactions

The reactions to Mulligan Stew have been overwhelmingly enthusiastic. T.V. Stations, Extension Staff, teachers, kids, have all enjoyed and benefited from the series.

As soon as the T.V. station representative saw the show he was sold. "We were pleasantly surprised" was a typical comment. Several T.V. stations are re-scheduling the series; all are interested in seeing what else Extension can offer them.

Extension staff experienced great success with the series and have real enthusiasm for it. The State 4-H and Youth Leader put it succinctly: "I think it's the finest piece of film that we have had the opportunity to use in Extension work."

Reports from the field show that teachers and children greatly enjoyed the show. As stated in the Johnson County report:

"Response by teachers to the Mulligan Stew T.V. Series was overwhelmingly favorable. The teachers indicated that the students enjoyed the T.V. series very much, and they especially found the member guides helpful and interesting. The series received a vast majority of favorable compliments."

Negative reactions were of a constructive nature. A Food and Nutrition specialist would have preferred to see more nutrition facts taught in the films. Some teachers would have preferred to have the series shown during school hours. A few felt that the action was too fast in the films.

The member's manuals (comic books) were highly regarded by all.

The District Agent (District 4) summed up the virtues of the comic book. She said it "had a message which boys and girls attend to; content was very good; more interesting to them than the more formal type of training." These comments might well apply to the Mulligan Stew series as well.

Estimated Costs

In order to derive costs for Texas we have used a 3-step system. We obtained the total costs at state level and divided by the state total T.V. enrollment (117,000) to obtain per child cost. We obtained costs for district 4 only and divided by 34,000, the number of children enrolled in the district. Finally we used figures from Fort Worth county (5319 children enrolled) to develop per child costs at the county level. We then combined these per child costs to estimate cost per enrolled child in Texas.

Summary Table on Estimated Costs

	Cost Per Child						
	State	+	District	+	County	=	Total
Materials	$37,960 / 117,000	+	$ 100 / 34,000	+	$ 30 / 5,319	=	$ .32
Extension Labor (includes Travel)	11,096 / 117,000	+	2,451 / 34,000	+	1,025 / 5,319	=	.36
Donated Services	-	+	-	+	11,412 / 5,319	=	2.15
Donated Goods	360 / 117,000	+	-		1,600 / 5,319	=	.30

Total cost of delivering Mulligan Stew on a per pupil basis is estimated at $3.13.

Total cost to Extension, subtracting out donated goods and services, is estimated at 68¢.

APPENDIX: DOCUMENTATION OF COST ESTIMATES

State Level Estimates

Materials

4 Sets Films	$4,800
Member's Manual (Comic Books) (300,000)	30,000
Teacher Manuals (11,000)	1,650
Records (100)	20
Posters/Brochures (18,000)	340
Iowa Promo. Film Print	30
Printing Costs (Certificate/Newsletters)	1,000
Space and Utilities (3 meetings)	120

Travel

1,450

Donated Goods

Meeting room for 9 training sessions	360

Labor

As in other states, the labor estimates were not documented but rather were "guesstimates" of time and effort. At the state level the total estimate was as follows:

State

Staff 4-H and Youth Leader	2 days @ $23,000*	160
T.V. Coordinator	86 days @ 15,000	4,730
4 Food and Nutrition Specialists	40 days @ ave.14,000	2,080
Clerical	86 days @ 5,500	1,720
		8,690
Fringes @ 11%		956
		$9,646

* Salaries are rounded.

District Level Estimates

Materials

Printing	$100.	

Labor

District Agents	3 days @ $18,000	$ 198
Area 4-H and Youth Specialist	25 days @ 15,000	1,375
Area Information Specialist	5 days @ 19,000	350
Clerical	13 days @ 6,000	286
		2,209
Fringes @ 11%		242
		$2,451

Fort Worth County

Materials

Mimeograph	30

Travel

500 miles @ 12¢	60

Labor

County Agent	15 days @ $9,000*	$ 495
ENP Staff	1 day @ 10,000	37
3 Program Assistants	56 hrs. @ 2.50	158
Clerical	72 hrs. @ 2.50	180
		870
Fringes (11%)		95
		$ 965.

*Salaries are rounded.

Donated Services

183 teachers	183 days @ $8,500**	$ 5,673
76 principals	114 days @ 12,500**	5,244
13 resource teachers	38 days @ 9,500**	455
9 jr. leaders	16 hrs. @ $2.50	40

Donated Goods

T.V. time (3 hours)	1,500
Use of building for presentation	100

** Estimated average

CONCLUSIONS AND RECOMMENDATIONS

Mulligan Stew has been enthusiastically described by all the staff of the sites we visited. The program was well received by the T.V. stations, the reports from the teachers were generally positive, the agents involved felt successful.

At an exceedingly low cost per child large numbers of children were reached and signed up as 4-H-T.V. members. As of October, 1974 the six states reported that between 20% and 90% of all 4th, 5th, and 6th grade children had become 4-H - T.V. members via Mulligan Stew. The table below details this finding:

State	Number of 4th, 5th,6th grade children in State	Number of 4th,5th,6th grade children reached by Mulligan Stew	% of 4th,5th, 6th grade children reached by Mulligan Stew*
Arkansas	112,000	103,000	90%
Missouri	270,000	171,000	60%
Oregon	N/A	N/A	-
Pennsylvania	650,000	205,224	30%
Tennessee	147,000	65,000	45%
Texas	687,000	117,000	20%

It would be interesting and appropriate for Extension Service to compare this capture rate with other programs in order to measure relative effectiveness of outreach. This outreach procedure cost Extension less than 80¢ in any of the six states compared with an estimated cost of $25** per member for other 4-H programs.

The multiplier effect was clearly operating in this program effort. Some of these effects are as follows:

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* Rounded to nearest 5%.

** Texas estimate.

- More people saw Mulligan Stew and learned about 4-H and Extension than the member's roster indicates. Since the program was beamed into people's homes it is clear that families who are unaccounted for have seen the shows.
- There is an improvement in the Extension image. Agents report comments from T.V. stations and the public suggesting that they "didn't know Extension was anything but agriculture."
- New and potentially valuable relations have been established with the educational community and the T.V. broadcasters.
- The program served as a morale builder for agents who experienced success and a new sense of professional competence.

In order to build on these effects and to extend the influence of Extension the following recommendations are made:

1. There has been little effort to move 4-H-T.V. members into other 4-H projects. While the shows were excellent promotional as well as educational devices, their outreach potential has not been fully realized. Follow-up activities should be part of the overall planning.

2. Given the costs for Mulligan Stew against the number of children reached and signed up as 4-H T.V. members, the show was extremely cost effective.* This combined with the positive experiences of the staff and the distribution channels developed through this effort strongly suggest that T.V. programming continue to be considered as one of the Extension Service program components. While the research and development costs are considerable, the payoff is very high.

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*Generally media studies employ "number watching the program" as their effectiveness measure. The measure employed in the case studies is more stringent, i.e., "number watching the program who joined 4-H T.V." For further data on effectiveness of programs see Volume II which reports on the impact evaluation component of this study.

3. Should Extension elect to continue its support of T.V. programming for the same target audience a number of suggestions are in order. These relate to lead time, interface issues, subject matter choice, promotional activities.

Lead Time. While all states engaged in training, the time between training and the airing of the program varied from two weeks to one year. Lead time should not be less than two months or more than five months. Three months is probably optimal. Also there should be at least twelve months between the time the films become available and training begins to allow for scheduling and budget arrangements, early promotion and informational publications and preparation of training materials and conferences.

Interface. The potential interface between T.V.-4-H EFNEP-Y did not occur, indeed the competition for members and the pressures which the volunteer leaders were under precluded any efforts on their part to include Mulligan Stew in their programming. This was a reflection of an organizational arrangement in Extension whereby the EFNEP program tends to operate independently of all others. In this case it was to the detriment of its members.

Thus there should always be an interaction between those staff who are arranging T.V. placement and those who are responsible for school contact and delivery of materials. The success of Mulligan Stew in any site depends on the interaction between T.V. schedules and school schedules.

Subject Matter Choice. Mulligan Stew was a particularly felicitous choice in that both Media and Schools had little or no exciting material on nutrition for that target audience. In selecting future subject areas care must be taken to ensure not only that the subject is timely but that there are few competing materials available for the target audience.

Promotional Activities. There was little evidence of promotional activities outside of the schools. This is a lost opportunity to carry the message of the program and thereby Extension to a larger audience. In future programming, promotion should be part of the planned activities.

4. The purpose of any evaluation is two-fold. Firstly it supplies needed information. Secondly it contributes toward policy decisions, e.g., the establishment of program priorities. It is unfortunate that the information on Mulligan Stew cannot be compared with information on other programs in Extension Service to allow priorities to be established on the basis of current data. There appears to be a paucity of other studies within Extension Service to which to relate these findings. We strongly urge the expansion of evaluation activities into other program components of Extension Service.